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AUTHOR Hooper, Susan
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ABSTRACT

This monograph presents an overview of the issues associated with teacher supply and demand, teacher recruitment, and teacher preparedness, including a summary of the findings of three recent national policy reports on teaching and education ("Tomorrow's Teachers," "A Nation Prepared: Teachers for the 21st Century," and "Time for Results: The Governors' 1991 Report on Education"). Discussion on teacher supply and demand, teacher recruitment, and teacher preparedness are offered in separate chapters. Each chapter provides information regarding: (1) recent statistical and policy information; (2) implications the recommendations from these three reports might have on local school districts; and (3) policy actions district leaders might consider undertaking. The monograph concludes with a look to the future both of education in the United States and of the school boards' role in teacher and education reform efforts. An extensive list of references is provided. (CB)

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GOOD TEACHERS: AN UNBLINKING LOOK AT SUPPLY AND PREPAREDNESS

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National School Boards Association

Jonathan T. Howe, President
Thomas A. Shannon, Executive Director

Center for Federation Member Relations,
State Legislation and Public Policy

Michael E. Eader, Associate Executive Director
Martharose F. Laffey, Assistant Executive Director
Adria L. Thomas, Research Manager

Author: Susan Hooper

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GOOD TEACHERS:

AN UNBLINKING LOOK AT SUPPLY AND PREPAREDNESS

May 1987

FOREWORD

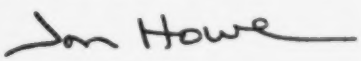
As America moves into a second wave of education reform, it becomes ever more incumbent upon local school boards to demonstrate strong leadership in the design and implementation of instructional improvements in the nation's public schools. Many of the recent reform proposals have come from state and national groups, sometimes without significant input from local education leaders. However, if the changes advocated are to succeed, support from, and substantial efforts by, local school officials will be required because it is in the local schools where education occurs.

A primary focus of the latest reform initiatives has been the teaching profession: to strengthen the corps of potential and incumbent teachers and to enhance the profession itself by more meaningfully involving teachers in the operation of schools. This proposed restructuring of the public schools to bring decision-making closer to the classroom has serious implications for the governance and administration of public education as we know it today, and it is not yet clear how such changes would work. Whatever shape the "new" profession of teaching assumes, however, there is widespread agreement that an adequate supply of well-qualified teachers is critical to prepare America's youth for the increasingly competitive, complex and dangerous world in which we live.

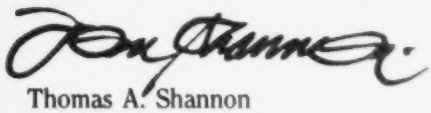
This monograph presents statistical and policy information on the two related issues of teacher supply and preparedness in the hope that local school boards will be better able to meet the challenge of upgrading both the teaching profession and American public education through the twenty-first century.

As the voice of your community, it is up to you—the local school board—to ensure that excellent teachers and excellent schools are the passport to America's future.

Very truly yours,



Jonathan T. Howe
President
National School Boards Association



Thomas A. Shannon
Executive Director
National School Boards Association

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INTRODUCTION

The current reform movement in education, which began in 1983 with the publication of *A Nation at Risk*, has recently focused its attention on the profession of teaching. In the course of this close scrutiny of public school teachers, two important and related facts about the profession have emerged. They are:

- Teacher supply—the number of people already in the profession, and those considering joining it—is declining.
- Teacher preparedness—to teach the complex variety of information today's students need for successful lives in the 21st century—is, in many cases, inadequate.

The awareness that the supply of teachers is decreasing, and that those teachers who remain may not have all the training necessary to adequately prepare today's young people for their adult lives has caused a flurry of activity among national education policy analysts, governors, state boards of education, and state legislatures.

Several major reports issued recently have called for the development of specific state and local policies to improve the profession of teaching and to attract more qualified candidates to the field. At the same time, state administrative actions concerning teaching have been adopted, and state legislation has been passed.

These state measures include providing scholarships to attract high school students to teaching careers, increasing education requirements for prospective teachers, raising teacher salaries, and developing campaigns to lure established professionals from other fields into teaching.

Some strategies have already borne fruit; with other efforts, results are as yet several years off. But the interest by national policy experts and state leaders in improving the profession of teaching shows no signs of abating.

Local District Involvement

What is the role of the local school district in this recent campaign to "rebuild" the teaching profession? What steps can districts take to maintain an adequate supply of well-qualified teachers, and to retain those teachers once they have been hired? How are school districts responding to the recent teacher reform measures developed by state boards of education and state legislatures? And what opportunity for bold positive action do the national education policy reports offer school districts in the transformation of the teaching profession?

Perhaps more than that of any other group, the involvement of local district leaders in the teaching reform movement is crucial to its success—for two reasons. In the first place, districts are the direct employers of most teachers, and many of the proposed changes in the teaching profession—increased salaries, improved working conditions, providing a voice in school administration—can be put into place only at the local level.

Even more important, however, local school board leaders, as elected or appointed officials, constitute the voice of their community in determining public education policy. They are an integral part of the American institution of representative and participatory government. This is a voice that must be heard if new education policy in public education—which is funded through local tax dollars—is to have any enduring weight.

The role of school districts in this regard is well-known to many of those calling for teaching reforms. As Governor Thomas Kean of New Jersey wrote in the recent National Governors' Association report on education, "Governors don't create excellent schools. Communities—local school leaders, teachers, parents and citizens—do."

A Preview of the Monograph

The purpose of this monograph is three-fold. First, the monograph presents an overview of the issues associated with teacher supply and demand, teacher recruitment, and teacher preparedness, along with a summary of the findings of three recent national policy reports on teaching and education: *Tomorrow's Teachers*—the report of the Holmes Group of education deans; *A Nation Prepared: Teachers for the 21st Century*—the report of the Carnegie Task Force on Teaching as a Profession; and *Time for Results: The Governors' 1991 Report on Education*—the report of the National Governors' Association.

The monograph then devotes a chapter to each of the three areas of teacher supply and demand, teacher recruitment, and teacher preparedness. Each chapter provides:

- recent statistical and policy information;
- a discussion of the implications that the recommendations in the Holmes, Carnegie, and NGA reports might have for local districts; and
- a list of suggested policy actions district leaders might consider undertaking.

The monograph concludes with a look to the future both of education in the U.S. and of the school boards' roles in teacher and education reform efforts. ■

STATING THE ISSUES

Roots of the Issues

The decline in the supply of teachers and the lack of preparedness of those teachers who remain in teaching are interrelated issues, and they have their roots in several areas.

Factors contributing to the lack of preparedness of many of today's teachers include:

- a decline in the quality of teacher preparation programs at some colleges and universities;
- the absence of programs designed to help first-year teachers make the transition from college to teaching—especially those programs that link new teachers with experienced teachers for one or two years; and
- lack of adequate education renewal programs for those teachers who have been on the job for some time.

Several factors contribute to the decline in the number of available teachers. For those who might have considered entering the profession from college or another profession, the reasons for rejecting teaching include:

- a low salary as compared with other professions open to college graduates;
- a societal lack of respect for the teaching profession; and
- growing professional opportunities for women and minorities, many of whom formerly chose teaching as a career because opportunities for them in other fields were few.

For those teachers who quit the teaching profession for another type of work, pressure to leave stems from all three of these factors, as well as from the frustrations and stress that teachers in many school districts say they experience daily. In a 1985 Metropolitan Life survey of American teachers, 62 percent of teachers who were considering leaving their profession cited an inadequate salary as a chief reason, while 41 percent gave "poor working conditions"—including too much paperwork, too many non-teaching duties, long hours, and overcrowded classrooms—as a main reason for considering another line of work.

For teachers, "poor working conditions" are both psychological and physical. Psychological conditions can include the feeling that, because they are teachers, they are not respected as professionals by either their supervisors or by their community. Poor physical working conditions are illustrated by the simple fact that, in more than a few districts, some teachers have no desks or filing cabinets of their own and "float" from room to room with their professional belongings stashed in shopping carts.

The 1985 Metropolitan Life survey found that half (51 percent) of all teachers currently teaching have seriously considered leaving their profession to enter some other occupation. And, even as classroom teachers are becoming discouraged, new teacher graduates are not appearing to replace them. In 1985, the National Center for Education Statistics predicted that the supply of new teacher graduates available to meet the demand for additional teachers would drop significantly—from 102 percent of demand in 1984 to a projected 63 percent of demand by 1993. Such statistics have led education experts to conclude that if changes are not made in the profession of teaching, the United States may be faced with a severe teacher shortage in the coming years.

The States React

To respond to the decline in the supply of teachers and to the need of schools for teachers who are better prepared for the education demands of the 21st century, many states recently have put into place a variety of legislative and administrative measures.

To increase the supply of teachers, states have: offered scholarships and college loan forgiveness to college students who pledge to become teachers for a certain number of years; raised beginning teacher salaries; and developed alternate certification routes for people from other professions who want to become teachers.

To address the decline in the level of preparedness of teachers, states have: raised entrance requirements to teacher education programs; increased curriculum requirements for education students; stiffened certification and re-certification requirements for teachers; and required districts to regularly evaluate their teachers' classroom teaching techniques.

More Changes Needed?

But in spite of the recent interest by states in improving the profession of teaching, several reports issued in 1986 by well-respected national education policy groups have argued that radical changes still need to be made if teaching, and, from that, education in America is to be anything but second-rate.

Reports issued separately in 1986 by the Holmes Group of education school deans, the Carnegie Task Force on Teaching as a Profession, and the National Governors' Association all call for sweeping changes—both in teacher education programs and in the organization of schools—to "professionalize" teaching and move American education into the 21st century.

The reports warn that if changes are not made in the profession of teaching, American education will be irreparably harmed. The Carnegie and NGA reports also contend that if steps are not taken quickly to transform teaching as we currently know it, both America's economy and its way of life will be placed in great jeopardy. As the Carnegie Task Force report puts it, the changes it outlines are necessary "if our standard of living is to be maintained, if the growth of a permanent underclass is to be averted, [and] if democracy is to function effectively into the next century. . ."

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The three reports offer a variety of recommendations to improve the profession of teaching. The discussion that follows, however, considers only those recommendations that bear most directly on the issues of teacher supply and demand, teacher recruitment, and teacher preparedness.

The National Policy Reports

Professionalization of the Teaching Profession

As Figure 1 shows, the proposals of the three policy reports can be divided into eight areas: organization of the schools; organization of the teaching profession; teacher compensation; teacher incentives and student performance; teacher professional standards; teacher education; teacher recruitment; and (in the NGA report only) state regulation of schools.

Although they may at first seem only loosely related, many of the reports' recommendations are linked by the common theme of increasing the professionalism of teaching. The teacher supply picture, teacher recruitment efforts, and initiatives to improve teacher preparedness all are affected by these recommendations to, as the Carnegie report puts it, transform teaching from "occupation" to "profession."

Treating teachers as professionals entails respecting the work that they do, and providing them with working conditions worthy of their professional status, the reports say. The Carnegie Task Force explains this new emphasis on "professionalism" in teaching in this way:

> . . . professional work is characterized by the assumption that the job of the professional is to bring special expertise and judgment to bear on the work at hand . . . Because professionals themselves are expected to have the expertise they need to do their work, organizations that employ professionals are not typically based on the authority of supervisors, but rather on collegial relationships among the professionals.

Such conditions, the Carnegie report maintains, are rarely to be found in the public schools today—a fact that makes it "impossible" for schools to attract "new people of real ability" to teaching.

How would a plan to professionalize teaching affect the supply, recruitment, and preparedness of teachers in districts? Ideally, districts that treat teachers as professionals should have less trouble retaining teachers and should be able to attract new teachers. In addition, professionalization of any occupation is accompanied by higher entry standards for its members. That is, "professionals" are required to function primarily without supervision, having acquired and demonstrated the capacity to perform their professional duties prior to performing on the job. Setting standards of professionalism among the teaching force also should help to ensure that those teachers have a superior level of preparedness.

"In a nutshell," the Carnegie Task Force writes in *A Nation Prepared*, "recruiting the most able college graduates to teaching will require the schools to offer pay and conditions of work that are competitive with those to be found in other places where professional work is done. That means fundamental changes in both the schools and the profession of teaching."

Reorganization of the Schools and the Teaching Profession

What are these "fundamental changes" to be made in both the schools and the profession of teaching? In brief, all three reports recommend reorganizing the schools to give teachers more of a role in various decision-making processes. They also suggest reorganizing the structure of the teaching profession to recognize different levels of teachers—from those with a combination of teaching experience and administrative responsibilities to novice teachers or interns.

Both types of organizational changes are part of the effort to "professionalize" teaching, by first improving the environment in which teachers teach and then by giving these professionals a chance to have more responsibility in their jobs.

The section on teaching in the NGA report, *Time for Results*, suggests that changes that affect the school "as an organization" are crucial to the transformation of teaching, because they directly address what troubles many teachers most about teaching. "Strategies that make the work environment of teaching more attractive are likely to be . . . powerful inducements to the people we want in the classroom," the NGA report says.

How would such organizational changes affect teacher supply, recruitment and preparedness in public school districts? Because these changes are linked to professionalization efforts, they too might be expected to improve the teacher supply picture and to help district recruitment efforts.

In addition, reorganizing the teaching force might have the effect of raising the level of teacher preparedness, because it would ultimately require higher qualifications of prospective teachers and continuing professional development for teachers in the work force.

What kinds of restructuring efforts do the reports consider? With respect to reorganization of the schools, the three reports argue that important changes must include altering the administrative structure of the schools to give teachers more of a voice in such areas as curriculum, school goals, discipline, and teacher continuing education. The current "division of authority between administrators and teachers" is inappropriate to the requirements of the new teaching profession, the Holmes Group says in its report, *Tomorrow's Teachers*. By the same token, the NGA calls for "a new definition of the principal's job to emphasize his or her responsibility to develop and use the leadership, professionalism and participation of teachers." Such a reorganization of the schools also would improve the working conditions of teachers, the Holmes Group suggests, while the Carnegie Report envisions that these reorganized schools "will be characterized by autonomy for the school as a whole and collegial relationships among its faculty."

Reorganization of the schools thus is closely linked with the reorganization of the teaching profession. All three reports suggest that the profession should be

FIGURE 1

A Comparison of Recommendations in The Holmes Group, Carnegie Task Force and National Governors' Association 1986 Reports on Teaching

"Tomorrow's Teachers" The Holmes Group	"A Nation Prepared" The Carnegie Task Force	"Time for Results" National Governors' Association
Organization of Schools		
Make schools better places for teachers to work and learn	Restructure schools to provide a professional environment for teaching	Redesign the organization of schools to create more productive working and learning environments
Organization of the Teaching Profession		
Recognize differences in teachers' work	Restructure the teaching force; introduce a new category of lead teacher	Redesign the structure of the teaching career
Teacher Salaries		
	Make teachers' salaries and career opportunities competitive with those of other professions	Improve teacher compensation at entry and throughout the career
Teacher Incentives/Student Performance		
	Relate incentives for teachers to school-wide student performance, and provide schools with technology services and staff essential to teacher productivity	Align teacher incentives with school-wide student performance
Teacher Professional Standards		
Create standards of entry into the profession.	Create a National Board for Professional Teaching Standards	Create a national board to define teacher standards
Teacher Education		
Make the education of teachers intellectually more solid	Require a bachelors' degree in Arts & Sciences as a prerequisite for the study of teaching	Rebuild the system of teacher education
Connect schools of education with public schools	Develop a new professional curriculum in graduate schools of education leading to a master in teaching degree	Define the body of professional knowledge and practice that teachers must have
Teacher Recruitment		
	Mobilize the nation's resources to prepare minority youngsters for teaching careers	Recruit able teacher candidates
		Improve teacher mobility (through transferable state licenses & credit for teaching in other districts)
State Regulation of Schools		
		Establish a "loose/tight" approach to state and local regulation of schools
		Establish the concept of educational bankruptcy (which gives states the power to intervene in the operation of failing local school districts)

restructured to provide for different levels of teachers, which would allow teachers with more experience and education to make greater advances within the field, acquiring both greater monetary compensation and more responsibilities to assist in running the school. Currently, the reports say, teachers can make substantial career advances only by moving out of teaching into administrative positions, or by leaving teaching altogether.

The Carnegie Task Force envisions a new category of "lead teacher," who could replace or complement the current school principal. A lead teacher would "provide active leadership in the redesign of the schools and in helping. . .colleagues to uphold high standards of learning and teaching."

The Holmes Group proposes a three-tiered system—a "career professional teacher," with responsibility in classrooms and in school management; a "professional teacher," who would have classroom responsibilty only; and an "instructor," a novice teacher who would teach under the supervision of a career professional teacher.

The NGA's proposal in this area is less clearly defined: it calls on schools to "redesign the structure of the teaching career. . .to provide increasing levels of responsibility and compensation of teachers, with selection criteria based on certified professional competence." These changes would both "eliminate a major reason for leaving teaching and serve to make better use of teachers' talents," the NGA says, although it points out that "how to develop new career structures is still an open question."

Teacher Salaries

As part of the effort to professionalize teaching, the Carnegie Task Force and the NGA propose raising teacher salaries—both at entry and throughout the teacher's career—to make the profession more attractive to qualified candidates.

Currently, the NGA points out, teacher salaries are low compared with salaries in other fields that require similar levels of education, thus making it difficult for qualified recent college graduates to turn to teaching as a career. In addition, teacher salaries are "compressed," the NGA notes: that is, there is "less than a $10,000 difference betweeen the bottom and the top salary levels in most states." As a result, teachers with a few years of experience often forsake the satisfactions of teaching for the opportunities for continued salary increases over time offered by other fields.

(Although such proposals as increasing beginning teacher salaries and significantly raising teachers' salaries throughout their career would certainly contribute to districts' teacher recruitment efforts, they will not be considered at any length in this monograph. Instead, they will be discussed in more detail in the second monograph in this series, one which will more specifically address teacher monetary incentive plans. This next monograph also will consider proposals—such as those offered by the Carnegie Task Force and the NGA—to link schoolwide or classroom student performance to teacher bonus incentives.)

National Teacher Professional Standards

The plan to create a national definition of teacher knowledge and standards also stems from the effort to further professionalize teaching. While it would do much to ensure teacher preparedness, such a system might have serious repercussions for local districts by significantly increasing school districts' competition for top teachers.

With its recommendation in this area, the Holmes Group of education deans proposes to create "relevant and defensible standards of entry to the profession of teaching," and also proposes to develop and administer a series of professional teacher examinations "that provide a responsible basis for decisions on entry to the profession."

The proposal in this area offered by the NGA is nearly identical to that offered by the Carnegie Task Force: both groups advocate the creation of a national certification board.

The Carnegie Task Force explains that this national board, whose representatives would include education professionals and state education officials, "would establish high standards for what teachers need to know and be able to do," and would certify teachers "who meet that standard." Such a system would be voluntary, according to the NGA, and states would continue to issue mandatory teacher licenses.

The results of such a system, according to the Carnegie report, would be an increase in demand for these certified teachers. "The availability of board-certified teachers is likely to lead to intense competition among districts for their services since, for the first time, local boards and parents will be able to identify reliably teachers who have met a high standard," the Task Force says.

The Carnegie Task Force itself points out that such competition would place districts of low and moderate tax capacity at a disadvantage, and suggests that states will need to become involved in "equitable distribution" of board-certified teachers—an activity that would doubtless pose more than a few problems for both states and the board-certified teachers.

In responding to this proposal, Thomas A. Shannon, the NSBA executive director, has questioned both the premise that no satisfactory standards for qualifying teachers now exist, and in what way a program of national certification could be responsive to "unique local conditions." Whether it is issued by a national certification board or developed by an organization such as the Holmes Group, then, a national standard for teachers could have serious consequences for school districts.

The Link Between Schools and Higher Education Institutions

In the area of teacher education, only one of the proposals—from the Holmes Group report—would directly affect school districts. The education deans' proposal to link schools of education with elementary and secondary schools offers a variety of opportunities for school districts, both in the area of teacher recruitment and teacher preparedness.

Briefly, the plan involves cooperation by both groups, with higher education institutions sending student teachers and interns to the schools, while schools make themselves available as field laboratories for training of those future teachers. In addition, the college and university education programs could serve as training institutions for the schools' established teachers, who might also make presentations to classes of education students.

The advantages to the district in such an arrangement are many. For one thing, recruitment opportunities increase dramatically when a school establishes a working exchange relationship with a local college or university education department. Those students who had positive student teaching experiences in the district may want to return there to teach full time. In addition, they can publicize the benefits of the district to their colleagues who may be job-hunting.

Secondly, the districts' experienced teachers gain access to the latest research in teaching, as well as to education professors with whom they can discuss their own teaching experiences.

Another benefit perhaps not immediately apparent to districts from such an arrangement is the district's opportunity to influence the curriculum of the education department, by suggesting what areas are particularly important for student training. The benefits to both schools and higher education institutions in such arrangements, then, are many and important, in the areas both of teacher recruitment and teacher training.

Teacher Recruitment

The NGA offers two suggestions for recruitment. First, states should have available "a mix of strategies" to recruit a variety of persons into teaching, including "minorities, people seeking a second or third career, and those preparing for their first"—advice which also works well for local districts. Although all types of candidates would have to meet the same standards for teaching, the NGA explains, "the obstacles, training needs, and inducements [to teaching] may differ" in each case.

In another proposal, the NGA suggests that states and districts should develop policies to improve teacher mobility from state to state or district to district by: 1) making it easier for teachers to transfer licenses from one state to another; 2) amending pension systems to allow for full transfer of benefits and 3) giving teachers full credit in a district for years of experience teaching in another district. Regulations governing these areas currently "block the force of state recruiting incentives," the NGA notes.

The Carnegie report concentrates on the pressing problem of preparation and recruitment of minority youth for careers in teaching, noting that, as the number of minority students is increasing in the schools, the number of minority teachers—who often serve as important role models for minority students—is declining.

Although acknowledging that increased standards for entrance into teaching, which include standardized tests, can serve as barriers to prospective minority teachers, the Carnegie Task Force argues that the fault lies not with the standards and the tests, but with school systems that have failed to adequately prepare their minority teacher candidates.

The Task Force suggests that middle and senior high schools can play a critically important role in singling out and encouraging minority students to prepare for careers—in teaching or elsewhere.

"We need to identify promising students, raise their aspirations, and support their efforts to do well and prepare for college," the Task Force says.

Also recommended are partnerships with nearby colleges and universities, and with local businesses and community organizations which can provide schools with invaluable assistance in the education of disadvantaged students, both for teaching and for other careers.

Response to a Crisis

The three policy reports all offer suggestions for a reformation of public school teaching aimed both at individuals and at the organization of schools and the teaching profession. Changes that affect individual teachers focus on improving teacher preparedness: they have do with teacher education, and with different ways of testing and certifying teachers. Organizational changes have to do with altering the current structure of both the public schools and the teaching profession to address some of the complaints teachers have about the conditions under which they work.

The presence of both kinds of proposals in the reports is important, because some education experts have argued that these two kinds of changes, although they address different areas of teaching, must be made in tandem if each is to succeed. Improving the conditions of teaching will not significantly improve education if teachers remain under-prepared for the challenges of today's education demands. At the same time, dramatically improving the preparedness of teachers will be useless unless the organization of schools is changed to allow teachers more autonomy and "professionalism" in their jobs.

The proposals to reorganize the schools and the teaching force would affect local school districts perhaps more than any of the other plans discussed herein. The implications of these proposals for local district leaders will be considered in greater depth at the end of the separate chapters on supply and demand, recruitment, and teacher preparedness which follow. But, because reorganization of the schools and of the teaching profession is one of the most consistent themes of all three reports, it may be useful to briefly consider here a few of its effects.

A restructuring of the schools—depending on how it is achieved—may affect school governance. In reviewing the Carnegie report in the September 1986 *American School Board Journal*, NSBA's executive director, Thomas A. Shannon, asked, "Under the Carnegie recommendations, what would become of the representative government epitomized by the local school board, which is accountable

to the people of its local community? Would the people's control over their schools be diluted in the interests of furthering a hegemony of professional educators?"

Local district leaders thus should consider these proposals to restructure schools within the broader context of school governance. But although proposals to restructure the schools and the teaching profession may present difficult issues for district leaders, they must be addressed nonetheless, because these proposals have gained widespread acceptance among many state and national education leaders.

In November 1986, for example, the U.S. Education Department announced it would help governors in eight states select pilot school districts to put into place the recommendations made by the NGA in its 1986 report, which include "strengthening school leadership [and] upgrading the teaching profession," U.S. Education Secretary William J. Bennett noted in announcing his department's support of the recommendations.

Furthermore, given the increased competition among districts for qualified teachers, those districts that have restructured their administration and have developed different levels of teachers may be better able to attract the best teachers. The pros and cons of proposals to restructure schools and the teaching profession, then, should be examined very carefully by school district leaders.

These and other proposals offered in the Holmes Group, Carnegie Task Force, and NGA reports are controversial. Some may appear completely unworkable to district leaders. But in reviewing the proposals of the reports, local school district leaders should keep in mind the fact that each report was written in response to what education professionals see as a true crisis in education: the decline in the supply and preparedness of teachers.

Addressing that crisis may be difficult for school districts, but it must not be impossible. The following chapters—which summarize current developments in the areas of teacher supply, recruitment, and preparedness, and offer suggested policy actions for districts—may prove of some assistance to local district leaders as they determine their own response to the crisis. ■

TEACHER SUPPLY AND DEMAND

Figures on the number of teachers the country needs are slippery and imprecise. In a survey released in July 1986, the National Education Association found a total of 32,000 vacancies in 100 of the nation's largest school districts, with 79 districts facing a "real shortage" of teachers for the following school year. The Carnegie Task Force on Teaching as a Profession estimates that 1.3 million new teachers will be needed nationwide between 1986 and 1992, while the National Center for Education Statistics estimates that the annual demand for additional teachers will increase from 165,000 in 1986 to 215,000 in 1992. At the same time, says NCES, the percentage of new teacher graduates available to meet that demand will shrink from 87 percent to less than 65 percent (see Figure 2).

Figure 2

Projected Supply of New Teacher Graduates Compared to Projected Demand for Additional Teachers, United States, 1986-92

Fall of Year	Projected Supply of New Teacher Graduates	Projected Demand for Additional Teachers	Supply as Percent of Demand
1986	144,000	165,000	87.3
1987	142,000	171,000	83.0
1988	139,000	162,000	85.8
1989	139,000	177,000	78.5
1990	139,000	188,000	73.9
1991	138,000	204,000	67.6
1992	137,000	215,000	63.7

Source: Valena White Plisko and Joyce D. Stern (National Center for Education Statistics), *The Condition of Education*, 1985 Edition.

Although they may disagree about the precise figures, however, most education analysts agree that the United States is on the verge of a serious shortage of qualified elementary and secondary school teachers. The shortage is not expected to affect all school districts in the country, nor all subject areas. But it will be widespread, nonetheless, its repercussions will be dramatic, and it is in large measure caused by the fact that fewer people want to become, or to remain as, teachers.

A noted and strong exception to the belief in a serious shortage of teachers is found in a fall 1986 study by Emily Feistritzer of the National Center for Education Information. In *Teacher Crisis: Myth or Reality?*, Ms. Feistritzer argues that, in teaching as in other fields, labor supply inevitably follows demand. Although acknowledging that teacher shortages exist in the West and in some large cities, as well as in the fields of special education, bilingual education, English, and science, Ms. Feistritzer maintains that, on the whole, the number of people entering teaching matches the demand for teachers. "Now that. . .the word is out that teaching jobs are available, people seem to be stepping forward once again to meet market demand," she says.

Daniel Hecher, a labor economist in the U.S. Department of Labor's Bureau of Labor Statistics, agrees with Ms. Feistritzer that "no large-scale shortages [of teachers] are likely," at least through 1995. Writing in *Occupational Outlook Quarterly*, Mr. Hecher bases his conclusion on a belief that changes resulting from the current education reform measures, e.g., higher pay and higher status of teachers, will lure enough individuals to the teaching profession to fill a projected yearly average of 35,000 new job openings that will occur during 1990 to 1995.

The number of available teachers, however, is not the only factor contributing to the current need for teachers. The population of the schools is on the rise again in many areas of the country, after declining throughout the 1970s, thus increasing the demand for teachers.

Information from the National Center for Education Statistics shows that in 1978, student enrollment declined nationwide by 57,000 students from 1973 levels, and dropped by another 11,000 students from 1978 to 1983. By 1993, however, enrollments are expected to have risen by a total of 68,000 students from 1985 levels.

The increase in the school population has at least two causes. First, the children born during the post-World War II baby boom are now having their own children—a phenomenon described by demographers as the "baby boom echo." In addition, states such as California, Florida, and Texas are experiencing increased enrollments because of an influx of people coming either from elsewhere in the U.S. or from other countries. Many of these immigrants are from Central and South America, the Caribbean, or Asia, and their children have unique education needs.

Factors contributing to the teacher supply problem nationwide thus include: 1) the lack of appeal of the profession to young adults; 2) the number of teachers leaving the profession for retirement or for other jobs; 3) changing characteristics of the United States population, which are increasing the demand for teachers in certain geographic areas of the country; and 4) increased demand in certain subject areas, caused either by changing demographics, by increased graduation requirements resulting from the education reform movement, or by other conditions. The following section reviews information pertaining to each of these factors.

The Lack of Interest of Young People in a Teaching Career

As Figure 3 shows, the number of college freshmen interested in teaching as a profession declined from 19.3

percent in 1970 to a low of 4.7 percent in 1982, and inched back up to 6.2 percent in 1985. In its study, *Classrooms without Teachers?*, the Western Interstate Commission for Higher Education (WICHE) also reports that the percentage of female college freshmen interested in teaching dropped from 37.5 percent in 1968 to 9.5 percent in 1985.

FIGURE 3

Percent of Freshmen Indicating Elementary or Secondary Teaching as their Probable Career, United States, 1970-85

Fall of Year	Percent
1970	19.3%
1971	15.4
1972	12.1
1973	8.8
1974	7.7
1975	6.5
1976	8.0
1977	6.9
1978	6.2
1979	6.4
1980	6.0
1981	5.5
1982	4.7
1983	5.1
1984	5.5
1985	6.2

Source: Valena White Plisko (National Center for Education Statistics), *The Condition of Education*, 1983 Edition. Updated with data from *The American Freshman: National Norms* for 1983, 1984 and 1985. Found in: *Classrooms Without Teachers?*

The first chapter of this monograph touched on three reasons for this decline in interest in teaching by young people: low salaries as compared with other jobs available to college graduates; the lack of respect accorded teachers and teaching in today's society; and the increasing career opportunities available to women and minorities, who once comprised a significant segment of the teaching force.

Other factors that may be influencing young people to not choose teaching careers are the stiffer requirements for entry into teacher education programs, as well as the more stringent requirements for certification many states have adopted. Both kinds of requirements especially affect the supply of new minority teachers, according to researchers at the Educational Testing Service. In a 1984 report, *The Impact of State Policy on Entrance into the Teaching Profession*, ETS researchers noted that, "Statistics collected by...states using teacher testing programs show that [these] tests have...had a differential impact on majority and minority populations."

According to a 1985 report prepared for the Carnegie Task Force, when the California Basic Educational Skills Test was administered to prospective teachers in 1983, the failure rate for whites was 24 percent, as compared with failure rates for blacks of 74 percent, for Mexican-Americans of 61 percent, and for Asian-Americans of 50 percent.

When Florida first required a similar examination in 1983, the failure rates were: 10 percent for whites, 65 percent for blacks, 49 percent for Hispanics, and 37 percent for Asian-Americans.

The ETS report quoted the predictions of one educator, who said, "Within the decade, the minority teaching forces will be less than five percent, compared to 12 percent in 1980." At the same time, the number of minority students is increasing; by the year 2000, one out of three students in U.S. classrooms will be a member of a minority group. Given the importance of qualified minority teachers to the educational success of many minority students, the decreasing supply of minority teachers can be expected to pose serious problems for many school districts in the coming years.

A 1985 report from the Southeastern Regional Council for Educational Improvement offers another, disconcerting reason why students are turning away from teaching careers: they are discouraged from doing so by the direct advice of their own teachers.

"The classroom teacher is a key actor in either recruiting or discouraging students [from becoming] teachers," the authors of this study say. "There seems to be a serious morale problem among the teachers in public schools: they feel alienated, unrewarded and misused. They feel that no one will listen to their complaints, and so they complain to their classes. Their students do listen and they learn that one lesson well: Do not become a public school teacher."

Teachers Who Leave Teaching

Two groups of people leaving teaching are expected to contribute to the anticipated teacher shortage. The first group are those teachers who will be retiring in the next 10 years. Their numbers are significant. Along with the rest of the American population, the teaching force has been "graying."

The National Education Association has estimated that between 30 and 50 percent of the country's teaching force will retire by 1990 or 1995, the WICHE study notes. The Carnegie Task Force says that many districts will have to replace half of their teachers between 1986 and 1990 because of vacancies left by retiring teachers. An April 1986 *Phi Delta Kappan* article on a comparative study of the Dade County, Florida, school district showed that in 1964, 39 percent of the district's teachers were 40 or older. Twenty years later, teachers 40 or older accounted for 54 percent of the district's teachers.

Another group leaving the profession are those young teachers who quit teaching after a few years for another occupation. Data from this group are extremely hard to find; in fact, the Southeastern Regional Council for Educational Improvement maintains that, according to its data, this "turnover" population is not a significant

factor contributing to the teacher shortage in its region.

Some of the reasons why these teachers leave the schools have been described in recent surveys of teachers and recent former teachers. Inadequate salaries and poor working conditions topped the list for those teachers and recent former teachers surveyed by Metropolitan Life in 1985. Knowing who these former teachers are might prove useful to school districts as well.

The Metropolitan Life survey—whose participants were 500 recent former teachers employed in another occupation at the time of the survey and chosen through a random selection process—found that, of the former teachers:

- 65 percent were male and 35 percent were female (a ratio quite different from that of the teaching corps; a separate group of current teachers surveyed by Metropolitan Life was 29 percent male and 71 percent female);
- 35 percent were between 35 and 39 years old, about 24 percent were between 30 and 34 years old, and about 24 percent were between 40 and 49 years old;
- about 34 percent had been in teaching between 5 and 9 years, while
- about 32 percent had been in teaching from 10 to 14 years.

Data from the Los Angeles Unified School District show a remarkably similar profile of teachers resigning from the district between 1979 and 1984. During that time, the mean age of those resigning varied between 34.8 and 35.7 years of age, and the mean number of years of service varied between 6.5 and 7 years. These data suggest that the teachers in Los Angeles most likely to resign are those in their mid-thirties who have taught in the district for about seven years.

The WICHE study cites information that five times as many mathematics and science teachers as teachers in other subject areas leave the local schools to take non-teaching jobs, and that 25 percent of all current mathematics and science teachers expect to leave teaching in the near future. (It should be noted, however, that in the Southeastern Regional Council for Educational Improvement study, researchers found that in their area, "math/science teacher turnover rates are not significantly higher than other teacher turnover rates.")

Geographic Areas of the Country Where Teachers are Needed

With respect to both geographic and subject areas, data on teacher shortages from the states are sketchy, in part because different states have widely different definitions of teacher supply and teacher demand, making comparisons difficult. But most analysts would agree that, with respect to different areas of the country, the shortages of persons qualified to teach public elementary and secondary school are serious in those states that have experienced an influx of people in the past few years, whether they are people moving from other states or individuals recently arrived from other countries.

The WICHE study, which defines supply as those new teacher graduates from in-state institutions, shows that of the 14 member states in the WICHE group, nine will experience serious or critical teacher shortages by 1990, and 10 will experience serious or critical shortages by 1995.

By 1995 the problem will be "critical" in Alaska, California, Nevada, New Mexico, and Wyoming, with "serious" problems in Arizona, Colorado, Hawaii, Idaho, and Oregon. Utah and Washington will show a moderate shortage in 1995, with Montana and North Dakota anticipating a surplus, according to the study.

The number of new teachers available in-state is particularly important to these western states, which historically have relied on teachers from out of state for the bulk of their new teachers. In Alaska, for example, 88.5 percent of the new teachers in the years from 1975 to 1980 came from out of state; in Nevada and Wyoming for that same period, the amount of out-of-state new teachers was nearly 70 percent and 67 percent, respectively. In a nationwide teacher shortage, then, the WICHE researchers reason, teachers for their students will be even harder to come by.

Teacher Supply in Urban Districts

Some 110 of the nation's 143 largest school districts responded to the NEA teacher shortage survey, which was conducted in June 1986. The NEA survey findings support the argument that California, Texas, and Florida—all states with a high percentage of recent immigrants—are experiencing shortages of teachers.

In the category of districts with enrollments over 100,000, all but one of the six districts with the most vacancies are in California, Texas, or Florida. These six districts are: Los Angeles, 2,050 vacancies; Houston, 1,688 vacancies; Dallas, 600 vacancies; Philadelphia, 500 vacancies; Broward County, Florida, 450 vacancies; and San Diego, 360 vacancies.

The NEA found further that:

- 100 districts were recruiting teachers for the 1986-87 school year;
- 79 districts indicated they might have a "real shortage" in September 1986; and
- 21 districts said no shortage would occur.

The average number of teacher vacancies in each of the 100 districts, the NEA determined, was 323 positions, based on a total of approximately 32,000 vacancies in all 100 districts.

Urban districts in some geographic areas are faring better than others around the country. As Figure 4 from the NEA survey shows,

- two-thirds of the districts in the West reported 200 or more vacancies each;
- four of the eight Northeast districts surveyed reported under 200 vacancies each, while another three of the Northeast districts each reported 500 or more vacancies; and
- two-thirds of the districts in the Midwest reported under 200 vacancies, with half of all those districts reporting under 100 vacancies.

FIGURE 4

Total Number of Teaching Vacancies at all Levels in 100 Urban School Districts

		ENROLLMENT			NEA REGION					
	Total	30,000–49,999	50,000–99,999	100,000 or more	North-East	South-East	Mid-Atlantic	Mid-West	West	Pacific
Total Respondents	100	49	40	11	8	27	24	9	21	11
Under 100 Teaching Vacancies	26	19	7	0	1	11	5	3	4	2
	26.0%	38.8	17.5	—	12.5	40.7	20.8	33.3	19.0	18.2
100-199 Teaching Vacancies	26	13	11	2	3	6	7	3	3	4
	26.0%	26.5	27.5	18.2	37.5	22.2	29.2	33.3	14.3	36.4
200-299 Teaching Vacancies	20	10	9	1	0	3	6	2	9	0
	20.0%	20.4	22.5	9.1	—	11.1	25.0	22.2	42.9	—
300-499 Teaching Vacancies	15	3	8	4	0	5	3	1	3	3
	15.0%	6.1	20.0	36.4	—	18.5	12.5	11.1	14.3	7.3
500 or More Teaching Vacancies	10	2	4	4	3	2	2	0	2	1
	10.0%	4.1	10.0	36.4	37.5	7.4	8.3	—	9.5	9.1
Don't Know	3	2	1	0	1	0	1	0	0	1
	3.0%	4.1	2.5	—	12.5	—	4.2	—	—	9.1
Mean Teacher Vacancies	323.3	248.8	328.9	621.9	1419.3	206.9	203.2	151.4	285.5	380.9
Median Teacher Vacancies	170.4	113.4	207.0	386.5	174.5	144.2	145.6	123.8	232.5	150.0

Source: National Education Association, Summer 1986

Teacher Supply in Rural Districts

The problem of teacher supply in rural districts also deserves attention, since acute shortages are anticipated and since rural and small schools in communities of less than 2,500 inhabitants represent 67 percent of all U.S. schools and enroll 33 percent of all school children.

Despite the trend toward consolidation, more than 25 percent of all U.S. school districts enroll fewer than 300 students, and these schools "include more than half a million students and fifty thousand teachers," according to a recent paper by Dr. Robert Carlson of the University of Vermont and Dr. William Matthes of the University of Iowa.

Most of these small districts traditionally have problems recruiting and keeping teachers even during times of teacher surplus. Factors affecting teacher supply that are unique to rural and small districts are not limited to the districts' locations—which often are far from the stimulus of metropolitan areas. The increasing emphasis on subject-area specialization in many teacher education programs also plays a part: fewer graduates of these programs are prepared for the demands of rural schools, where teachers may have responsibility for several subjects and extracurricular activities, according to Arni T. Donathan of the University of Missouri.

Rural educators also fault many teacher education programs for not offering courses to introduce students to the challenges and satisfactions of teaching in a small or rural district.

Furthermore, salaries in rural districts rarely are competitive with those in larger districts. In their study, Dr. Carlson and Dr. Matthes note:

> According to a recent report of the National Education Association, the 11 lowest paying states are Mississippi, South Dakota, Maine, New Hampshire, Oklahoma, Arkansas, Vermont, West Virginia, Louisiana, Idaho, and South Carolina. The national average for teacher salaries is $23,546, while the average salary for these 11, very rural states, is $18,715, ranging from $15,970 to $19,800.

Because of these factors, too, rural districts that succeed in attracting new teachers traditionally experience higher levels of teacher turnover than non-rural districts. A 1980 special education study conducted by the National Rural Project found that nearly one-half of 75 school districts polled in 17 states had problems keeping teachers, with some states pointing to annual turnover rates of 30 to 50 percent in rural areas and almost full teacher turnover every three years, James Miller and Dennis Sidebottom reported in a recent study for the American Association of School Administrators.

Teacher Shortages in Subject Areas

With respect to subject areas, several factors contribute to teacher shortages, some of which have already been mentioned. New student graduation requirements in many districts, resulting from the recent education reform movement, have created teacher shortages in certain subject areas such as mathematics, the sciences and foreign languages.

In addition, as the children of the "baby boom echo" reach school age in the next few years, demand also will increase for elementary teachers—out of proportion to supply.

Special education and bilingual education also are areas of shortages, studies show. The need for qualified bilingual education teachers will be especially high in states with a large number of recent immigrants whose primary language is not English.

Mathematics and science teachers are in short supply in many areas of the country. According to a 1984 Rand Corporation report, the National Science Teachers Association has estimated that by 1995, 300,000 additional mathematics and science teachers will be needed nationwide. Research information suggests that the need for teachers in these fields is linked not only to increased graduation requirements and the departure of science and mathematics teachers for more lucrative positions in private industry, but also to the fact that, of those young people still going into teaching, proportionately fewer are choosing mathematics and science as areas of subject specialization.

Figure 5, prepared by the Association for School, College and University Staffing (ASCUS), shows the teaching fields identified as having "some" or a "considerable" shortage of teachers by some 280 teacher placement officers in a nationwide survey conducted in the fall of 1985.

According to the ASCUS survey, areas with the greatest teacher shortages are: mathematics, physics, chemistry, bilingual education, special education for children with multiple handicaps, and special education for the mentally retarded.

Teaching fields with some shortages nationwide include special education for the learning-disabled, computer

FIGURE 5

Relative Teacher Demand by Teaching Area and Year in Continental United States

Based upon a Survey of Teacher Placement Officers

Conducted by Association for School, College and University Staffing

	1986	1985	1984	1983	1982	1981	1976
Teaching fields with considerable teacher shortages. . . (5.00-4.25):							
Mathematics	4.55	4.71	4.78	4.75	4.81	4.79	3.86
Science-Physics	4.44	4.57	4.45	4.46	4.41	4.56	4.04
Science-Chemistry	4.40	4.42	4.25	4.30	4.13	4.42	3.72
Bilingual Education	4.27	4.12	4.04	3.83	4.13	4.10	—
Special Education—Mult. Handi.	4.25	3.94	3.77	3.82	3.93	4.13	—
Special Education—MR	4.25	3.76	3.55	3.71	3.84	4.14	2.87
Teaching fields with some teacher shortage. . . (4.24-3.45):							
Special Education—LD	4.23	3.95	3.98	4.09	4.20	4.47	4.00
Computer Science	4.22	4.37	4.34	—	—	—	—
Special Education—ED/PSA	4.20	4.02	3.84	4.08	3.98	4.22	3.42
Speech Pathology/Audio.	4.09	4.01	3.83	3.62	3.95	4.27	3.68
Data Processing	3.97	4.30	4.18	4.36	3.86	—	—
Special Education—Gifted	3.91	3.85	3.74	3.80	3.81	4.10	3.85
Science—Earth	3.86	3.79	3.70	3.80	3.89	4.08	3.44
Science—General	3.82	3.65	3.65	—	—	—	—
Science—Biology	3.65	3.58	3.40	4.10	3.66	3.98	2.97
Language, Mod.—Spanish	3.64	3.43	3.18	2.77	2.68	2.95	2.47
Special Education—Reading	3.46	3.39	3.48	3.39	3.73	4.21	3.96

Key: 5 = Greatest Demand, 1 = Least Demand

Source: Association for School, College and University Staff, *Tenth Annual Teacher Supply/Demand Survey,* January 1986

science, speech pathology, data processing, special education for gifted students, earth sciences, and biology.

An analysis of the data in Figure 6, however—an ASCUS comparison of teacher shortages by subject and region of the country—shows that subject area shortages are by no means uniform in all areas of the country.

Hawaii, for example, shows serious shortages in 19—or nearly half—of the 41 subject areas listed in the study. Alaska shows no shortages in four of the areas that have the greatest shortages nationwide: bilingual education, special education, mathematics, and the sciences. Instead, teacher shortages in Alaska are in the fields of business, health education, library science, and instrumental and vocal music.

The need for special education teachers, which exists in all areas of the country except Alaska, appears to be lower in the mid-Atlantic states and in the Northeast than in other regions of the continental U.S.

Which Districts Will Experience a Shortage of Teachers?

The information presented in this chapter suggests that a variety of factors determine whether or not a district can anticipate experiencing a teacher shortage in the next several years.

The area of the country where the district is located is a factor, especially if it is in an area that has recently seen an influx of new residents or one that traditionally has had shortages of teachers.

The size of the district is another factor: large urban and small rural districts generally have more trouble attracting teachers, irrespective of geographic location.

The kind of students a district has also plays a part: districts with large numbers of students whose first language is not English, for example, will obviously have a higher need for bilingual education teachers—at a time when those teachers are in short supply.

Those districts who have recently increased their graduation requirements may find they have a greater than average need for teachers in certain areas such as mathematics, science, English, or foreign languages.

School districts located near high technology industry centers may find they are losing a percentage of their mathematics and science teachers to opportunities created by those businesses. And those districts who may once have tried to recruit their new teachers from among their own former students may find they have more and more trouble doing so if their own teachers are portraying teaching as a career no one should consider.

Teaching Reform— More or Fewer Teachers in the Future?

Unsettling as the projected picture of teacher supply through the remainder of this century is, these projections must be evaluated in the broader context of teaching reform activities—those recommended and those already underway. As the previous chapter has shown, actions called for by the Holmes Group, the Carnegie Task Force, and the National Governors' Association are far-reaching and, in some cases, radical. Several of the recommendations made by these reports could have a significant impact on the pool of potential teachers. These recommendations, with the impact they might have on district teacher supply, are considered below.

The Proposals to Develop and Adopt National Standards For the Teaching Profession

With significant numbers of classroom teachers and minority teacher candidates already failing state-required standardized tests, a national certification examination might further discourage both prospective and current teachers. Even though the national certification procedure —as proposed by the NGA and the Carnegie Task Force—is voluntary, it could nonetheless be seen as a necessary "credential" for becoming or advancing as a teacher.

A national certification process also carries with it the danger of increased emphasis on a "standardized" definition of what makes a good teacher. Research does not bear out an absolute link between academic knowledge or "test-taking" skills and good teaching.

In spite of plans to broaden the certification procedure beyond test score results, the sheer administrative difficulties associated with a national certification procedure might result in a reliance on test scores as a key measure of candidates.

As stated earlier in this chapter, the shortage of teachers is particularly acute in inner-city and rural districts. If competition for "board-certified" teachers becomes as strong as the Carnegie Task Force predicts, these districts—which traditionally have lower salaries and less satisfactory working conditions—would have less chance of attracting board-certified teachers. The lack of board-certified teachers in those districts would thus be one more measure—for district leaders, students, and parents—that the best education services are not available to them.

The Proposals to Reorganize the Schools and the Teaching Profession

Recommendations regarding such reorganizations may do much to attract and keep good teachers, but some of the methods proposed may not be the best or most practical solutions.

Many districts already are developing their own plans to involve teachers more in school administration. (The second monograph in this series will provide some specific examples of these plans.) The long-term effects of moves in this direction will have to be monitored.

In the September 1986 *American School Board Journal*, several school administrators took exception to the Carnegie report's suggestion that the principal be replaced with a "lead teacher." They pointed out that the word 'principal' comes from the 19th century term 'principal teacher'—an experienced teacher who was given responsibility for running the school. Abolishing the position of principal would not do away with the welter of administrative duties for which principals are now responsible. What it would destroy is the "strong leadership" by a principal that research has shown is necessary for effective schools.

FIGURE 6

Teacher Supply/Demand by Field and Region

Field	Alaska	Hawaii	1 North-West	2 West	3 Rocky Mtns.	4 Great Plains /Midwest	5 South Central	6 South-East	7 Great Lakes	8 Mid-Atlantic	9 North-East
	Region										
Agriculture	—	3.00	4.00	2.57	3.00	3.08	3.00	3.00	4.00	4.00	3.00
Art	2.00	2.00	1.86	1.81	2.08	2.17	2.40	2.53	2.26	2.00	2.50
Bilingual Ed.	3.00	2.00	4.29	4.74	4.50	4.24	4.63	3.45	4.27	3.58	4.14
Business	4.00	4.00	3.50	3.46	2.90	2.74	2.76	2.90	3.39	3.82	3.75
Computer Science	3.00	4.00	4.14	4.25	4.44	4.00	4.39	4.28	4.27	4.21	4.29
Counselor-Elem.	3.00	5.00	3.57	2.25	2.95	3.42	3.14	2.95	3.23	2.60	3.14
Counselor-Sec.	3.00	5.00	3.63	2.45	3.05	3.15	2.86	2.90	3.43	2.94	2.78
Data Processing	3.00	3.00	3.67	3.67	3.88	3.96	3.69	4.07	3.97	4.56	4.67
Driver Ed.	3.00	1.00	1.75	2.50	2.00	2.21	2.71	2.69	2.67	2.33	3.00
Elementary-Primary	3.00	1.00	2.38	3.58	3.00	2.29	3.58	2.79	2.30	2.61	2.85
Elementary-Intermediate	3.00	1.00	2.25	3.58	3.18	2.38	3.54	2.96	2.44	2.61	3.00
English	2.00	4.00	3.00	3.84	3.25	3.17	3.33	2.79	3.23	3.38	3.36
Health Education	4.00	2.00	1.63	2.29	1.60	1.59	2.29	2.13	1.90	1.77	2.63
Home Economics	2.00	1.00	2.25	2.25	2.38	2.31	2.38	2.31	2.73	3.50	3.00
Industrial Arts	2.00	5.00	3.50	2.83	3.20	2.78	3.55	3.67	3.09	4.33	5.00
Journalism	3.00	2.00	2.14	3.06	3.11	3.00	2.80	2.93	3.10	2.40	4.00
Language, Mod.-French	3.00	4.00	3.00	2.92	3.20	3.26	3.16	3.83	3.61	3.11	3.60
Language, Mod.-German	3.00	3.00	3.00	2.79	3.45	3.30	2.83	3.80	3.57	2.83	3.25
Language, Mod.-Spanish	3.00	4.00	3.57	3.96	3.73	3.43	3.22	3.95	3.88	3.21	3.50
Library Science	4.00	3.00	3.60	3.54	3.78	2.84	3.62	3.60	3.50	3.33	3.00
Mathematics	3.00	5.00	4.13	4.84	4.58	4.24	4.75	4.64	4.65	4.48	4.70
Music-Instrumental	4.00	1.00	4.21	3.27	3.91	3.29	2.86	2.68	3.21	2.61	3.13
Music-Vocal	4.00	1.00	3.71	2.71	3.55	3.18	2.59	2.62	3.04	2.44	3.13
Physical Education	2.00	1.00	1.17	1.86	1.67	1.25	2.24	1.86	1.48	1.60	1.43
Psychologist (school)	4.00	—	3.60	2.84	3.17	3.75	3.20	3.50	3.69	3.36	3.25
Science-Biology	2.00	5.00	2.63	4.19	3.00	3.58	3.78	4.12	3.37	3.93	3.60
Science-Chemistry	2.00	5.00	3.63	4.48	4.17	4.25	4.39	4.56	4.52	4.31	4.70
Science-Earth	3.00	5.00	3.00	4.08	3.45	3.72	4.22	4.08	3.71	4.08	3.89
Science-General	3.00	5.00	3.00	4.17	3.25	3.64	4.05	4.04	3.82	3.92	3.89
Science-Physics	2.00	5.00	3.50	4.57	4.46	4.24	4.41	4.56	4.62	4.44	4.67
Social Sciences	3.00	1.00	1.86	2.28	1.91	1.91	2.27	1.71	2.18	2.50	2.56
Social Worker (school)	—	—	2.50	3.00	2.38	2.82	2.67	2.83	3.06	2.60	2.50
Speech	3.00	1.00	2.43	2.92	3.09	2.39	2.64	3.00	2.70	2.70	4.00
Spec.-Deaf Education	3.00	4.00	3.50	3.50	4.43	3.67	4.00	4.00	3.52	3.50	3.40
Spec.-ED/PSA	3.00	4.00	4.14	4.20	4.67	4.13	4.17	4.29	4.37	3.79	3.89
Spec.-Gifted	3.00	3.00	3.29	3.43	4.00	4.12	4.13	4.28	3.94	3.55	3.71
Spec.-LD	3.00	4.00	3.86	4.30	4.78	4.15	4.30	4.50	4.31	3.77	3.88
Spec.-MR	3.00	4.00	4.00	4.29	4.67	3.85	4.26	4.27	4.00	3.68	3.94
Spec.-Multi. Handi.	3.00	4.00	4.00	4.40	4.67	4.21	4.25	4.47	4.28	3.94	3.94
Spec.-Reading	3.00	3.00	3.17	3.06	3.89	3.44	3.91	4.00	3.36	3.20	3.00
Speech Path./Audio.	3.00	—	3.50	3.67	4.44	4.22	3.71	4.27	4.26	4.00	4.33
COMPOSITE	2.95	3.16	3.15	3.44	3.43	3.18	3.45	3.49	3.42	3.34	3.47

KEY: 5 = Considerable, 4 = Some Shortage, 3 = Balanced, 2 = Some Surplus, 1 = Considerable Surplus

Source: Association for School, College and University Staff, *Tenth Annual Teacher Supply/Demand Survey*, January 1986

In addition, some critics suggest the proposals to establish different levels of teachers within the school system would create a "caste system" among teachers that would destroy the sense of collegiality necessary for effective schools. Mary Hatwood Futrell, president of the National Education Association and a member of the Carnegie Task Force, has said in disagreeing with this section of the Carnegie report that the lead teacher concept wrongly suggests to her that "some teachers are more equal than others."

The Proposals to Increase Academic Requirements for New Teachers

The Carnegie Task Force recommends that prospective teachers obtain a bachelor's degree in the arts and sciences before receiving their master's degree in teaching. The Holmes Group proposes that new teachers receive a master's degree in education before they can be fully certified. These proposals could seriously affect teacher supply, because the increased time and increased funds required to obtain a teaching degree may discourage prospective teachers.

The Proposals to Increase Teacher Salaries

Although increasing teacher salaries would no doubt help districts retain current teachers and attract new ones, such a recommendation would have a direct, immediate effect upon the district's budget, in a way that, for example, reorganization of the schools might not. In a time of teacher shortages, however, districts that can offer teachers more—in terms of salary and better working conditions—will find it easier to obtain and keep better teachers. Because of the important role that an adequate salary plays in retaining teachers, then, school district leaders may be required to raise additional resources to maintain an adequate supply of teachers.

Responses to the Teacher Shortage

What can districts do when faced with a shortage of teachers? In such a circumstance, districts have a variety of less-than-perfect options. They can offer fewer courses; they can increase class sizes; or they can assign teachers from different fields to teach subjects in shortage areas. They also can issue emergency teaching certificates to persons who lack the necessary training and qualifications to be teachers.

Urban districts, according to the NEA survey, more often respond to a teacher shortage by reassigning teachers to teach classes outside of their field than by eliminating courses or increasing class size. Data from that study indicated that if a teacher shortage occurred:

- 38 percent would likely assign teachers outside of their field of preparation;
- 38 percent would likely recruit people from other fields who had not been trained as teachers;
- 19 percent favored eliminating or reducing some courses;
- 12 percent said they would likely increase class size; and
- 12 percent said they might hold split sessions.

In rural districts, research suggests, the practice of recruiting non-certified teachers for shortage areas is even more common. A 1983 poll of 200 rural school systems nationwide found that 92 percent of those responding relied on emergency certificates to help fill special education vacancies, with only 8 percent of districts prohibiting this practice, according to the AASA rural school recruitment study mentioned earlier.

These responses represent districts' reactions when faced with a sudden, unforeseen teacher shortage. By planning in advance, however, district leaders can do much to avoid having to make difficult choices such as issuing emergency certificates or assigning staff members to teach courses out of their fields.

Suggested Policy Actions Concerning Teacher Supply for Local District Leaders

Nearly any plan to retain a district's current teaching staff or to recruit new teachers will be an additional drain on district financial resources. The challenge for district leaders thus may be to develop cost-effective plans to address teacher supply questions in their own schools. Developing these proposals may require an initial expenditure of funds, but it may ultimately be less costly than increasing class sizes, issuing emergency certificates, or cancelling classes for lack of teachers.

Some suggested policy actions for district leaders in the area of teacher supply follow here. They are directed toward helping school board members analyze the status of teacher supply in their districts and take appropriate action to ensure the maintenance of an adequate, qualified teaching force.

To achieve such an end, local district leaders can:

- Ensure that staffing policies address long-range personnel needs. A sound long-term plan should be based on, among other things:
  - — projected demographics in the district;
  - — an examination of the current teaching force, including upcoming retirements and recent turnover patterns and reasons for teachers leaving;
  - — the possibility of new school configurations or consolidation efforts;
  - — an increased need for teachers in certain subject areas because of new state or local curriculum requirements.
- Include in appropriate policies the requirement of regular examination of the needs of the current teaching force, as a way of averting the loss of teachers. Policies should consider staff development needs in such areas as:
  - — improving the staff's technical knowledge, such as in work with computers;
  - — passing new state teacher examinations; and
  - — meeting new state re-certification requirements.
- Develop and evaluate beginning teacher assistance programs, as a way of keeping new teachers in the district.

Talking with Teachers: Suggested Questions for a Roundtable Discussion Between School District Leaders and Teachers

In talking with teachers about their working conditions in the schools, district leaders might want to ask teachers questions such as these. The answers to the questions may help district leaders plan their own agenda for retaining teachers in their schools. (These questions are drawn from the report *Listening to Teachers*, published by the Education Commission of the States.)

1. What is the most important problem you face as a teacher? How would you like to see it resolved? (Some important problems teachers say they face include an inadequate salary; poor working conditions such as too many non-teaching duties, overcrowded classrooms, or inadequate time for planning classes; or lack of respect from school administrators, students or parents.)
2. How does the school environment support your efforts to be effective as a teacher? How does it impede those efforts? (For example, is the administration receptive to your ideas about teaching? Are other teachers willing to offer assistance and ideas? Are students interested and motivated to learn?)
3. Some say we need a radical reorganization of the way schools work. Others argue for more gradual changes. What do you think?
4. What school decisions—e.g., curriculum planning, textbook selection, evaluation of other teachers—do you think you should be involved in as a teacher? How would this involvement help your students?
5. Would you change the way time is used in the schools? What changes would you make? (For example, teacher surveys show that teachers want more time to exchange ideas about teaching with their colleagues. They also say too much of their time is spent on non-teaching activities that should be handled by paraprofessionals.)
6. Are you satisfied with the results of your teaching? If so, what could be done to enhance those results? If not, what could be done to improve things? ■

- Set in place a mechanism for gathering information from district teachers on their perceptions of teaching conditions within the school district. Such a mechanism might take the form of an informal roundtable discussion with teachers, who would participate with the understanding that they be allowed to speak freely about their work environment without fear of reprisals on the job. (See box above for some suggested questions to ask teachers.)
- In planning how to meet state and local education goals for children, district leaders should look for ways to involve teachers more fully in designing the means of achieving those goals. Teachers' skills and creativity can be utilized to develop, for example, instructional materials and learning strategies. Such a plan involves teachers in the work of running the schools in the district, allowing them to use their expertise outside the classroom. In so doing, it addresses one of the common complaints that experienced teachers have about their work—that is, that they have little voice in the running of the schools.

The Teacher Shortage: What to Do?

The preceding section should suggest to school district leaders that they have several avenues open to them to address teacher supply issues in their districts, including long-term monitoring of the district's need for teachers and developing programs to encourage the current teaching force to remain in the district.

Devising methods to keep current teachers from leaving the district is one important way to ensure an adequate supply of teachers. Another way is to recruit new teachers. States and districts have recently developed a variety of teacher recruitment initiatives, both to bring districts more teachers and to attract non-teachers to the field of teaching. The next chapter reviews some of these recruitment initiatives, at both the state and the local level. ■

TEACHER RECRUITMENT

Recruitment of employees is a standard practice for large businesses with many employees in diverse occupations. But for school districts, many of whom have hundreds of employees, recruitment traditionally has been much more the exception than the rule.

"At the local school system level, almost no emphasis was given to teacher recruiting," the authors of the Southeastern Regional Council for Educational Improvement study found in surveying a variety of school districts in their area. "School system administrators tend to assume that the right person will walk in the door. Searching and cultivating the marketplace are virtually unknown activities. Generally, whoever walks in the door turns out to be 'right.'"

In the past few years, however, as both state and local education policymakers have become concerned about the availability of qualified teachers, policies designed either to attract non-teachers into teaching or to lure experienced teachers to different districts have become more and more numerous.

State Policy Initiatives

In the past five years, nearly every state legislature or state board of education has acted on programs designed to recruit teachers. These policies are of three types:

1. Monetary incentives: statewide increases in teacher starting salaries, and special loans or scholarships to college students who pledge to become teachers.
2. Strategies to improve the experience of teaching, which include mentor teacher and apprenticeship programs for new teachers, as well as other assistance aimed at experienced teachers.
3. Efforts to attract non-teachers into teaching, such as developing alternate routes to certification, recruitment among recently retired professionals, and statewide public relations campaigns that tout the rewards of teaching.

See Figure 8 on the next page for a summary of recruitment-related programs in the 50 states.

1. Monetary Incentives

While low salaries are one reason why qualified teachers leave teaching, they are also a reason many college students offer for not choosing a teaching career. As Figure 7 shows, as late as 1984 the average salary for beginning teachers lagged considerably behind average beginning salaries for several other occupations. Figure 7 also depicts an important finding of the study of the teacher labor market in the Southeast: college students underestimate the beginning salaries of teachers while overestimating the beginning salaries of many other occupations.

"Merely providing accurate earnings opportunity information in the schools would provide some help toward improving the quality and quantity of persons entering teaching," the study authors suggest.

FIGURE 7

Mean Student Estimates of Beginning Salaries and Comparison to Actual Beginning Salaries Reported by College Placement Council, July 1984

Occupation	Expectation Average	College Placement Council Report Actual
Accounting	$23,200	$19,512
Marketing	21,100	18,300
Engineering	30,700	26,340
Computer Programming	29,600	24,480
Business Management	20,900	18,444
Statistician	24,800	22,440
Public School Teacher	12,700	13,500
Health Professional (Other than Physician)	20,200	18,360
All College-Educated Workers	23,400	20,562

Source: *The Dynamics of the Teacher Labor Market in the Southeast.*

Teachers may have been neglected in the first round of recent state education reforms, when the emphasis was on raising curriculum and graduation requirements for students. Now, however, states appear to be recognizing that quality in education depends on teachers, that teacher preparedness is in part linked to the wages paid teachers, and that state laws to raise teacher salaries may be the best way to ensure that salary increases are made by districts.

(It should be noted, however, that while some states, such as New Jersey, provide initial financial aid to districts to adjust salaries in accordance with the new laws, in the long term the task of raising the resources to pay for increased teacher salaries ultimately falls to the districts.)

In a 1985 survey, the Education Commission of the States (ECS) found that the average beginning salary for teachers had risen to $18,000 or more in five states: Alaska ($26,752); New Jersey ($18,500); Wyoming ($18,042); and California and Massachusetts (both $18,000). Legislation passed in New Mexico in February 1986 requires a minimum salary of $18,370.

In New Jersey, California, and New Mexico, the minimum salary levels are now state law. In Massachusetts, legislation stipulates that meeting mandated minimum teacher salaries is a local district option, with the state supplementing teacher salary funds for up to two years in those school districts that exercise the option. Several other states have also passed legislation requiring a minimum beginning salary for teachers, according to a

FIGURE 8

State Initiatives to Recruit Teachers

	Financial Incentives	Beginning Teacher Assistance	Non-Traditional Certification	Public Relations Efforts
Alabama	A, C, D			
Alaska	C			
Arizona			G	
Arkansas	A			
California	B, C	E	G	X
Colorado	C	E (1987)	G	
Connecticut	C			
Delaware	C		G	
D.C.		E	G	
Florida	C		G	
Georgia	A, B, C		G	
Hawaii	A, C		H	X
Idaho				
Illinois	C, D			
Indiana	D			
Iowa	C			
Kansas		F (1987)	G	
Kentucky	A, C, D			
Louisiana	C	F	G	
Maine	B, C, D			
Maryland	C, D	F (1987)		
Massachusetts	B	E	G	
Michigan	D			
Minnesota				
Mississippi	C, D			
Missouri	B, C	E (1988)	G	
Montana				
Nebraska			G	
Nevada	A			X
New Hampshire			G	
New Jersey	B, C			
New Mexico	A, B			
New York	C	F		
North Carolina	C	E	G	
North Dakota	B			
Ohio				
Oklahoma	C	E	G	
Oregon				
Pennsylvania	C, D	E (by 1987-88)	G	
Rhode Island				
South Carolina	B, C		G	
South Dakota		E		
Tennessee	A, C, D			
Texas	B		G	
Utah	C			
Vermont	C		G	
Virginia	C		G	
Washington	C	E		
West Virginia	C			
Wisconsin		F		
Wyoming	C			

*Includes only approved and currently (1986) funded actions

Key: A = State-funded salary increases
B = State minimum salary laws
C = Scholarships or loans to attract students to teaching
D = Scholarships or loans for teachers to retrain in other subject area
E = Beginning teacher assistance programs
F = Pilot beginning teacher assistance programs
G = Alternate route certification (does not include emergency certification or certification issued only when no certified teachers are available)
H = Irregular certification for inservice teachers in new fields that are critical shortage areas

Source: Information for this chart was compiled from the American Association of Colleges of Teacher Education, June 1986 *50-State Survey of Legislative and Administrative teacher Education Actions*

FIGURE 9

Characteristics of Teacher Loan Programs, by State, 1985

State	Program type	Year created	Maximum loan ($)	Eligibility		Teaching years required to forgive loan	Math/ Science Component
				Years	Criterion		
Alabama	LF	1982	3,996[a]	2	Merit	6	yes
Alaska	LF	1984	7,500[a]	5	Merit	5	—
Arizona	LF	1983	4,000[a]	2	Merit	4	yes
Arkansas	LF	1983	2,500[a]	4	Merit	5	yes
California	LR	1984	8,000[b]	3	—	—	yes
Connecticut	LF	1983	5,000[a]	2	Merit	5	yes
Delaware	LF	1984	5,000[a]	4	Merit	8	yes
Florida	LF	1983	4,000[a]	2	Merit	4	yes
	LR	1983	10,000[b]	4	—	—	yes
Georgia	LF	1984	1,500[a]	2	Merit	2	yes
Illinois	LF	1983	550	NL	—	varies	yes
Indiana	LR	1983	10,000[b]	5	—	—	yes
Iowa	LF	1983	1,500	NL	—	2	yes
	LR	1983	6,000[b]	6	—	—	yes
Kentucky	LF	1982	2,500[a]	3	Need	3	yes
Louisiana	LF	1984	2,000[a]	4	Merit	5	—
Maine	LF	1984	1,500[a]	4	Merit	2	—
Maryland	LF	1984	5,000[a]	4[c]	Merit	3	yes
Massachusetts	LF	1984	2,000[a]	2	Need	2	yes
Mississippi	LF	1983	3,000[a]	2	Merit	2	yes
Nebraska	LF	1983	500[c]	6[c]	Merit	3	yes
New York	LF	1984	3,000[a]	4	Merit	2	yes
North Carolina	LF	1957	2,000[a]	4	Merit	4	—
Pennsylvania	LF	1983	1,500[a]	4	Merit	4	yes
	LR	1983	2,500[a]	4	—	—	yes
South Carolina	LF	1984	2,500[a]	5	Merit	5	yes
Tennessee	LF	1984	1,500[a]	4	Merit	4	yes
Texas	LF	1984	1,000[c]	4[c]	Merit	2	yes
	LF	1984	2,500[a]	none ($5,000 max)	Need	4	yes
Vermont	LR	1984	varies	none	—	—	yes
Virginia	LF	1984	2,000[a]	2	Merit	2	yes
Washington	LF	1983	2,500[a]	none ($10,000 max)	Need	10	—

Key: LF = Loan Forgiveness; LR = Loan Repayment; NL = No Limit.

[a]per year

[b]cumulative

[c]per semester

Source: The College Board, *The Use of Student Financial Aid to Attract Prospective Teachers.*

1986 survey of state education policy activity from the American Association of Colleges for Teacher Education (AACTE). They are: Maine ($15,500 by 1986-87); Missouri ($15,000 for 1986-87 and then increasing to $18,000); and Texas ($15,200, established in 1984).

As the Supply and Demand chapter showed, freshmen interest in education careers has declined dramatically in the last 15 years. In an effort to reverse this trend and increase the supply of teachers, states have begun offering scholarships or "forgivable" loans to students in teacher education programs. According to the College Board, 28 states now have financial incentives of this type in place. (See Figure 9.)

Typically, the loan forgiveness programs allow the student to repay the loan by teaching in the state's public schools for a specified period of time. Many of these scholarship or forgivable loan programs are tied to geographic or subject teacher shortage areas, and some

of them are earmarked for current teachers who want to re-train to become qualified in a shortage area.

In 1984, for example, Oklahoma made scholarship awards of $1,000 each to 100 persons seeking certification in the areas of mathematics, science, foreign languages, special education, and industrial arts, according to AACTE. Scholarship students agreed to teach one year in the public schools for each year of scholarship aid received.

Florida offers scholarships in subject areas with critical shortages, and forgivable loans for people who agree to teach in rural or inner-city areas. A New Jersey loan program is forgivable in four years if the recipient teaches in an urban New Jersey school, and in six years if he or she teaches in a suburban school.

In its study of these programs, however, the College Board expressed reservations about their effectiveness in attracting candidates to teaching. The College Board's primary argument against the programs' effectiveness in this regard is its finding that the people who applied for and received the scholarships or loans were, for the most part, already planning on careers as teachers. In addition, the College Board found, several loan recipients in Kentucky had trouble obtaining jobs when they graduated, because the positions in the shortage areas for which they had trained were occupied by teachers teaching out of field.

2. Programs to Improve the Experience of Teaching

States have recently begun to adopt initiatives to improve the experience of teaching for the same reason they have passed legislation to raise teacher salaries: they realize that qualified teachers are crucial to the success of their education reforms, and they want to address those areas of teaching that are causing current and prospective teachers to turn away from teaching careers.

The involvement by state legislators and boards of education in these areas is a sign that state officials see the loss of teachers from the public schools as a serious state issue, one that must be addressed with statewide solutions.

Both types of initiatives, of course, are all the more significant in light of the findings of the 1985 Metropolitan Life survey of former teachers, in which former teachers said inadequate salaries and poor working conditions were two of the main reasons they left teaching.

With respect to efforts to improve working conditions, current and former teachers agree that many teachers' frustrations with their jobs begin when they are new teachers. Traditionally, many school systems have taken the sink or swim approach with new teachers: teachers learn by doing (and by making mistakes), rather than with the assistance of more experienced teachers.

To ease the transition of new teachers into the workplace—and thus to make the idea of teaching in their districts more appealing to new teachers, states have instituted two types of beginning teacher training programs: mentor teacher programs and apprenticeship programs.

In mentor teacher programs, experienced teachers are chosen to work with new teachers, offering them guidance and support, both in class and out of it. The mentor teachers are given stipends and in some programs are relieved of many of their regular teaching duties. The District of Columbia has a mentor teacher program, as do California, New Hampshire, New York, and Washington.

In apprenticeship programs, new teachers are paired with one teacher, from whom they are expected to learn the craft of teaching—an arrangement not unlike that of the crafts guilds of the Middle Ages. Other state efforts to assist beginning teachers include having districts develop a team approach to evaluating new teachers, and issuing provisional teaching certificates to new teachers for the duration of their training period, which in some states lasts up to four years.

Some of these beginning teacher programs are geared to newly certified graduates of teacher education programs who have limited teaching experience; some are geared to college graduates with no education background who teach while preparing for certification. Other states with beginning teaching programs include: Colorado, Louisiana, Massachusetts, North Carolina, Oklahoma, Pennsylvania, and South Dakota.

Beginning teacher programs attempt to improve the working conditions of teachers by relieving the psychological stress that the early years of unsupervised teaching can cause. In its survey *New Directions for State Teacher Policies*, ECS has pointed out that many states also are developing programs to "renew the enthusiasm" of experienced teachers and assist them in polishing their skills.

New York State, for example, has funded teacher resource centers, where teachers can receive training and advice in a variety of areas. North Dakota's state education department co-sponsors a week-long exchange among teachers, business people, and political leaders, with scholarships provided for 100 teachers and graduate credit given in business, economics and education. In an effort to improve the working conditions of all teachers, Kentucky passed legislation that ensures reduced class sizes and duty-free lunch periods, according to AACTE.

3. Attracting Non-Teachers to Teaching

Concerns about the less-than-satisfactory practice of issuing emergency teaching certificates during times of teacher shortages continue to be voiced by school boards, administrators and parents of school children. Leaders of teacher unions and other educators have long decried this practice, which they charge can lead to classrooms filled with unqualified "warm bodies" during such shortages. Nonetheless, qualified individuals from other professions who desire to enter teaching constitute a pool of potential teachers that cannot be ignored.

As a result, more and more states are developing "alternate routes" to teaching. These plans are designed to enable qualified persons without education training to become teachers, while ensuring—by means of the stiff requirements placed upon the new teachers—that the pitfalls of emergency certification are avoided.

The involvement of state legislators and boards of education in this area thus can be traced to a desire by state officials to achieve two goals at once: the development of a statewide recruitment program to attract qualified, highly motivated people with no education background to the teaching field, and the creation of a monitoring system to keep unqualified individuals from becoming permanent teachers in the state's schools by means of emergency certification.

According to the recent AACTE 50-state survey, 20 states have some form of "irregular certification" route. These routes, however, vary widely in their requirements. Some states allow such certification only for teacher shortage areas, while some states grant them only for a one-year or two-year period. And many states require candidates to take education courses during the period for which they are provisionally certified.

Perhaps the most detailed of these programs is in New Jersey, which has developed an alternate route to certification designed to appeal to professionals from other fields, as well as to college teachers or private-school teachers. Saul Cooperman, the state's education commissioner, has argued that the one-year alternate route training plan gives the state a control over these teachers that is not possible with emergency certificates.

The alternate route candidate in New Jersey must:

- hold a valid bachelor's degree;
- have 30 credits in the field to be taught, or five years of appropriate experience;
- pass a general knowledge or subject examination;
- have an offer of employment from a school district;
- undergo a 20-day intensive practicum under a supervisory teacher;
- complete 80 clock hours of professional instruction before beginning teaching; and;
- complete an additional 120 clock hours of professional instruction during his or her first year of teaching.

In addition, the school district must provide support that includes regular evaluation by an assigned team. At the end of the first year, the alternate route teacher will be granted full certification, have the probationary period extended another year, or be denied certification.

Out of the 121 people who began the program in September 1985, 105 persons received certification in 1986 and three had their probationary period extended for another year, according to Roger Shatzkin, a spokesman for the New Jersey education department. The alternate route program's first-year attrition rate of less than 11 percent (13 teachers in all) thus is lower than that for regularly trained teachers in the state, whose first-year attrition rate is about 17 percent, Mr. Shatzkin said.

New Jersey education officials, school district officials, and the teachers themselves all have expressed enthusiasm for the program, he noted. Currently 322 public schools in 116 districts throughout the state have hired alternate route teachers, and the 1,900 applicants to the program in 1986 represented an increase of more than 50 percent over the 1,200 applicants in 1985. Another 198 alternate route teachers began their one-year training period in the fall of 1986.

Other efforts to attract non-teaching professionals and others to teaching include statewide public relations campaigns. Both California and Hawaii have such campaigns; in Nevada, officials from education schools are visiting high schools in the hopes of interesting high school students in teaching careers. Some education analysts have targeted recent retirees from business or the Armed Forces as likely candidates to teach mathematics or the sciences in schools, and in some areas of the country, cooperative efforts between the education and the business communities are underway to find such persons.

In September 1986, the federal government became involved in this effort when William J. Bennett, Secretary of Education, and Caspar Weinberger, Secretary of Defense, signed an agreement urging retired military people to consider teacher careers. Some states and school districts also are investigating development of programs that would allow non-teaching professionals to teach classes in critical shortage areas under the supervision of a certified teacher.

Local Policy Initiatives

Large District Recruitment Efforts

At the local level, more than a few districts have been forced to radically change their ways in order to attract teachers to their schools. A June 1986 story in *Education Week* painted a vivid picture of school district officials scrambling to create recruitment offices, visiting job fairs, and devising a variety of non-teaching incentives to woo prospective teachers to their halls.

The story reported that Fresno, California went from having no recruitment budget to having one of $15,000 in three years, while Denver's recruitment budget has grown from "almost nothing" to $40,000 in only two years. And while the Atlanta school district gives away pens and notepads to teacher candidates, the Prince George's County, Md., school district offers first-year teachers a variety of somewhat more valuable incentives: one month's free rent, lower consumer loan rates, and credit cards with no annual fees.

The Los Angeles Unified School District, which anticipates a need for nearly 14,000 additional teachers by 1991, has made "major changes" in its personnel division since 1984, according to information released by the district. The district established a recruitment center to assist teacher candidates through the application and selection process. The interview, examination, and contract process were expedited. In its first year of operation, the recruitment center enabled the district to hire 1,900 new teachers, and to have a contract teacher in every classroom for the first time, according to the district.

Los Angeles Unified also has offered salary restoration to former teachers who return to the district to teach in

shortage areas; granted salary credit for prior non-teaching service deemed comparable by the district for new teachers in shortage fields; and hired approximately 250 "teacher trainees," who have a strong background in their subject area but need more experience in teaching technique and classroom management. These trainees work with mentor teachers for a two-year period and attend training classes, in addition to teaching.

The NEA's summer 1986 survey of some of the country's largest school districts found that school districts are recruiting teachers from:

- colleges and universities (very likely for 91 percent of those polled);
- other areas of the state (very likely for 70 percent and somewhat likely for 10 percent);
- neighboring states (very likely for 62 percent and somewhat likely for 14 percent);
- other regions of the country (very likely for 49 percent and somewhat likely for 19 percent);
- foreign countries (very likely for 7 percent and somewhat likely for 8 percent).

Some 25 percent of the districts who responded to the NEA said they were offering some form of incentive to attract teachers to their districts. Among the incentives:

- 14 percent are offering increased salaries and other "supplements;" and
- 8 percent are offering bonuses for teachers in fields such as bilingual education and special education.

Rural District Recruitment Efforts

As the information in the chapter on teacher supply and demand shows, the problems most districts experience in recruiting teachers generally are greater for rural districts, even when no teacher shortage exists.

Rural educators have developed suggestions for rural school districts to follow to attract teachers, which concentrate on stressing what is positive about the rural school teaching experience. Benefits to be publicized include: the low pupil-teacher ratios in most rural schools; a variety of teaching assignments; a greater degree of autonomy for teachers; and a chance to be part of a small, close-knit team of teachers and administrators.

These conditions, coupled with a high degree of parental and community involvement in the schools, can provide valuable career experience for teachers.

The advantages of living in rural areas and small towns also appeal to many individuals and should be emphasized in recruitment efforts. Characteristics to promote include: a less hectic pace than urban life; a generally lower cost of living; and (where appropriate) climate, geography, and access to recreation areas. The chance to be an important and recognized part of a community also can be a strong incentive to attract teachers to smaller districts.

Other strategies rural districts can adopt to attract candidates include creating a competitive salary and benefits package; paying moving expenses for new teachers; assisting in locating employment for the teacher's spouse, as well as in finding housing; and involving the community in welcoming the new teacher.

Rural educators suggest that recruiters should look for individuals who lived in rural areas before and want to return to a similar place. One of the reasons for the high rate of rural teacher turnover has been the difference between many non-rural teachers' idealistic expectations and the often difficult realities of rural school teaching.

Making Recruitment a Priority: One Woman's Efforts

Marvel Lamb, superintendent of the rural Scotts Mills, Oregon, school district, which has 150 students and nine teachers in grades one through eight, serves as a good model for district leaders interested in improving their district's recruitment program. According to a report from the Oregon School Study Council, Ms. Lamb's recruitment strategies—which she carries out herself—include active and careful interviewing, frequent contacts with university placement officers and student teacher supervisors, and periodic notes to strong candidates to maintain their interest in the district.

When she came to the district, Ms. Lamb had six applicants for a teaching position. After seven years on the job, her pool of applicants for each teaching position has risen to 60.

Ms. Lamb's success suggests that, with dedicated staff, district recruitment programs need not be costly to achieve results.

Of her work in this area, Ms. Lamb has said, "It doesn't matter that my process is time-consuming. What can be more important than finding the right teacher for these children?" ■

The Need for Long-Range Planning

If the teacher shortage worsens as predicted, recruitment efforts at the state and local level will no doubt increase. Some strategies for attracting teachers are exciting and offer promise. But recruitment efforts must not be undertaken in haste, no matter how severe the area's teacher shortage. Such measures as hiring large numbers of uncertified teachers will only create different sets of problems for districts in the following years.

The Southeastern Regional Council for Educational Improvement suggests in its study of the teacher labor market that, when local districts do begin to recruit, they should go well beyond hiring for "immediate needs" to developing long-range personnel requirement plans. The WICHE study concurs with this advice by suggesting that "careful planning, which recognizes the cyclical nature of manpower needs" is the most effective means of addressing the teacher shortage.

Such planning can include projecting teacher demand in the district in cycles of 10 years or longer, with adjustments if the community experiences a rapid influx of residents. Careful monitoring of this data will ensure

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that districts are prepared well in advance for a rise in school enrollments.

Making recruitment a long-range priority in districts also involves such activities as maintaining active (preferably computerized) files of teacher candidates, corresponding with those applicants who show promise, and keeping in contact with placement officers at nearby colleges of teacher education—both to advise them of the district's needs and interests and to find out who the top graduates of the schools are. In addition, schools can recruit future teachers from among their own students by interesting them in teaching as a career.

To assist them with this work, some districts have hired school recruitment officers to devote full time to the task. But even more important than a recruitment officer—who may be a luxury for some districts—is earmarking funds annually for recruitment activities.

Such funding will be easier to come by when school district leaders agree that recruitment is not something a school district undertakes now and then; rather—and especially in times of teacher shortage—it is a year-long, day-to-day activity.

National Teaching Reform Recommendations—Help or Hindrance to Teacher Recruitment?

The reports from the Holmes Group, the Carnegie Task Force and the NGA recommend national and state actions that may both directly and indirectly affect future teacher recruitment strategies in local districts. Thus, a review of the proposals and their implications is in order before turning to teacher recruitment policy actions at the local level.

The Proposals to Reorganize the Schools and the Teaching Profession

Restructuring the schools to create a more productive environment for teachers should help in recruitment of teachers to the district, for the reasons outlined previously. Similarly, redesigning the structure of the teaching career to give teachers more opportunities for advancement also can attract teachers to districts that have adopted innovative teaching career ladders.

As stated previously, reorganization of the schools may affect the current system of school governance—including the responsibilities of school board members. School district leaders have a responsibility to recruit the best teachers possible, however, and a reorganization may increase recruitment opportunities for districts.

The Proposal to Increase Teacher Salaries

Increasing teacher salaries would aid districts in recruiting not only beginning teachers, but also in recruiting experienced teachers who may have been earning less in another district. Salary increases also improve a district's chances of retaining their current teachers. Thus, increasing teacher salaries is an incentive for teachers not only as they begin teaching, but throughout their career.

The Proposal to Connect Schools of Education with Public Schools

As noted previously, any plan to bring the public schools and schools of education closer can hardly help but be of benefit to the public schools—especially in the area of teacher recruitment. Students from those education departments who do their student teaching in the schools—provided they have a good teaching experience—will more than likely want to return as full-time teachers in the district when they graduate. In addition, other students in the program may be encouraged to apply after hearing of their colleagues' good experiences there.

The Proposal to Improve Teacher Mobility Through Transferable State Licenses and Credit Given for Teaching in Other Districts

The National Governors' Association's proposal to have states honor teacher licenses from other states and teaching experience from other districts can aid district recruitment efforts, but school boards must make sure they examine the impact of this proposal on their current personnel policies. In particular, districts should study retirement benefits policies, which may vary widely from state to state and district to district. Without study, the initial benefits of recruitment to be gained from such a proposal may be outweighed by the difficulties of equitably transferring some employee benefits.

Similarly, transportability of teaching credentials requires sophisticated information management systems—systems that most school districts currently do not have. Local school boards and their state associations should lead efforts to ensure that adequate electronic systems accompany teacher mobility activities.

The Proposal to Mobilize the Nation's Resources to Prepare Minority Students for Teaching Careers

As the number of minority students continues to grow, it becomes ever more important that a larger proportion of the next generation of teachers be members of minority groups. The call to schools to provide their talented minority students with the emotional and scholastic encouragement they need to become teachers is one that local districts can ill-afford to ignore.

The impact of the changes called for by the Holmes Group, the Carnegie Task Force and the NGA will not be known until states and local districts have more experience with implementing the recommendations. Teacher recruitment, however, has always been, and should remain, a domain of local school leaders. The following are several suggested recruitment policy actions—including those for long-range recruitment efforts—that district leaders may wish to consider.

Suggested Policy Actions Concerning Teacher Recruitment for Local District Leaders

In this area, local district leaders can:

- Consider strategies to gain district public awareness

and support for the benefits to the community and the students of restructuring the schools and the teaching corps. Restructuring the schools, while it will likely aid district recruitment and other educational activities, usually cannot be made without additional resources. In this regard, community relations activity is crucial for school boards, because, as the Carnegie Task Force points out, opinion polls have shown the public is willing to pay more for public education if it knows what the benefits derived from those additional resources will be.

- Ensure that any restructuring of the schools and teachers is reflective of the values of the community. Teachers recruited to districts are more likely to stay when the schools enjoy the support and good will of community members.
- Ensure that any plan for reorganization of teachers and other professionals in the district takes into account existing collective bargaining agreements between the district and teachers' unions. In fact, facets of a reorganization—for example, teacher participation in school governance decisions—can be useful to district leaders as a "bargaining chip" in such negotiations.
- If a community has no history of strong support for the public schools, district leaders may have trouble designing and funding programs to recruit teachers. School district leaders thus should make it a priority to increase public awareness of the need to support and fund programs to improve the schools and to recruit and retain the ablest teachers.
- Create an ongoing, annually funded recruitment program, elements of which could include:
  - maintaining up-to-date candidate files;
  - keeping in contact with teacher college personnel offices and teacher education departments (see box, page 28);
  - collaborating with nearby school districts if the district is too small to afford its own recruitment program;
  - developing a public relations strategy to make teacher candidates aware of the district's assets (see box, page 31);
  - providing reimbursement for job candidate interview travel expenses, and reimbursement for relocation expenses incurred by newly hired teachers.
- Consider developing a computerized database about teachers-in-training in order to reduce the time required by manual sorting processes. Such a system could be designed and implemented in collaboration with state school boards associations, teacher preparation institutions, and/or other school districts.
- Consider what the physical and psychological working conditions are for teachers when developing a public relations strategy to attract teacher candidates to the district. If conditions are good, the board can use this information as a recruitment strategy, since research has shown that working conditions play a large part in determining whether teachers stay at work in a district or not. If working conditions in the district leave something to be desired, the board must consider possible remedies, since these working conditions can contribute to the district's recruitment difficulties.
- Examine the role of technology in the district's schools, both in terms of teaching and administrative activities. A work environment that is designed to make state-of-the-art tools available to teachers will be more attractive than a chalk-and-pencil environment.
- Investigate programs in other districts that have successfully recruited teachers, with the thought of adapting or adopting them. Such programs may include:
  - individual salary considerations for former district teachers who return to teaching
  - salary credit for appropriate non-teaching duties.
- Consider adopting a policy concerning the ethics of recruiting personnel currently employed in other districts. (Recruiting qualified teachers from other districts may benefit all parties, however, when those districts have had to lay off qualified teachers for budgetary reasons.)
- In developing recruitment policies, ensure that strategies for recruiting outside the district, and that criteria for promoting from within, are well designed and clear. Emphasize the importance of recruiting from a variety of different places. Such policies ensure that long-term goals such as increasing the supply of minority teachers can be met, and enable the district to consider a variety of different types of teacher candidates.
- Develop strategies for working with other groups in the community—such as local businesses and community organizations—to help foster interest among minority students in teaching. As part of this effort, boards could consider developing educational programs—such as work-study programs—to support minority student development.
- In the area of state recruitment initiatives, take an active role in working with state legislatures—either directly or through state school boards associations —to ensure that:
  - an impact analysis of any proposed legislative mandate is conducted, and
  - information from that analysis is transmitted to and used by state legislators.
- Develop programs to nurture the next generation of teachers by helping high school students explore such teaching career opportunities as tutoring peers or younger students, assisting teachers, visiting and participating in programs at schools of education. Providing counselors with appropriate information for guiding students in their choices also may help increase the supply of future teachers.

The chapter on teacher supply may have suggested to school district leaders that, in more than a few areas of the country, a shortage of teachers is all but inevitable. This chapter has presented a variety of alternatives for

those districts who plan to address that shortage—whatever its level of severity—by developing an active teacher recruiting strategy. No matter what the supply of teachers, however, the level of preparedness of teacher candidates is always an issue for districts—whether they are recruiting new teachers or evaluating their current teaching force. The next chapter considers recent state initiatives to improve teacher preparedness, and looks at some policy actions district leaders can consider taking to improve the level of teacher preparedness in their own schools. ■

A Role for School Board Members in District Recruitment Efforts

One Virginia school district has come up with a plan to involve school board members in what has become a highly successful, yet inexpensive, teacher recruitment program.

In the June 1986 *American School Board Journal*, C. Fred Bateman, superintendent of the Chesapeake, Va., public schools, described his district's recruiting effort. A suburban district in southeastern Virginia, the school system employs slightly fewer than 1400 teachers at an average salary of $22,930.

Mr. Bateman likened the recruiting program, which involves attracting top students from education programs at nearby colleges, to that of college sports teams, whose scouts recruit "up and coming talent" early in their high school careers.

"Why can't you do the same and put together a winning education team with top student teachers?" Mr. Bateman asked.

The district's program operates much as it did in 1983, its first year of operation, Mr. Bateman said.

At that time, district leaders asked education professors at nearby Virginia Tech and Norfolk State University to identify for the district those "student teachers who showed the greatest promise." School principals and personnel directors then visited the schools to interview the students and "narrow the list of prospects."

At that point—the fall semester of the students' senior year—district officials invited them for a "two-day, all-expenses-paid visit to Chesapeake," where the students received "first class treatment, including tours of our schools and the community and a banquet hosted by the school board."

An important part of the recruitment strategy involved pairing each prospective teacher with a school board member and an administrator, "whose task was to sell these students on our schools."

At the conclusion of the visit, school officials conducted a final interview with each candidate, and then "offered the senior teacher contracts right then and there—eight months before the start of the 1983-84 school year." The two conditions of the offer were that the candidates successfully complete their student teaching, and that they agree not to apply for employment elsewhere.

The fact that, in the first year, all the students accepted the offer is one key to the success of the program, Mr. Bateman noted. The other is the satisfaction school leaders have with it.

"From our viewpoint, the program works well," he said. "We get high-caliber teachers—including those with hard-to-find majors in mathematics and science who could be drawn to private industry's higher wages."

Furthermore, he added, "Our school board members enjoy the process. They like selling our schools and knowing they help attract top-quality teachers to our staff."

The beauty of such a program, Mr. Bateman concluded, is that it is both simple, inexpensive—less than $1,000 annually, and it provides districts with "the very best young teachers. . ." ■

TEACHER PREPAREDNESS: RECENT STATE EDUCATION AND CERTIFICATION REQUIREMENTS

The issue of teacher preparedness is a delicate one, involving as it does an assessment of the quality of the potential and current teacher labor force. Such an assessment is difficult, since teacher quality is developed over a period of many years, beginning with the entry of students into teacher education programs and continuing on through teacher education, initial certification, the early years on the job, and advanced certification.

In reviewing this process, education policymakers have identified a variety of factors that keep teacher preparedness from being all it could be. These factors include:

- teacher education programs do not attract "the best and the brightest" high school students, many of whom are choosing careers other than teaching;
- teacher education programs fail to prepare their students well enough for a teaching career;
- school districts traditionally have been lax in three areas that would improve teacher preparedness: providing new teachers with training and support; periodically evaluating the on-the-job performance of all teachers; and allowing experienced teachers the time to pursue continuing education in their fields.

In an effort to improve the preparedness of teachers at all stages in their careers, the states have undertaken a variety of initiatives. They range from testing applicants to teacher education program to the development of continuing education programs for teachers with many years of experience. In the past few years, testing of teachers—at all levels of experience—and on-the-job performance evaluation of teachers have become popular state education reform measures. Some of these new reform policies are controversial and, because they are so new, the effects of most of them on the quality of education are as yet unknown.

It is important to point out here, however, that these reforms were designed with the ultimate aim not of burdening teachers with needless additional requirements but of improving student learning by making teachers more effective in the classroom.

Such reforms as skills testing of students before entering and graduating from teacher education programs—and similar testing of experienced teachers—were developed to ensure that teachers have a command of the basic skills they are charged with imparting to their students.

The same principle underlies reforms aimed at increasing undergraduate teacher education curriculum requirements, and at raising the continuing education and certification requirements for experienced teachers. It is only natural to expect that the better command a teacher has of both basic skills and specific subject-matter knowledge, the more assured he or she will be in the classroom.

However, as Dr. Gerald Mager of Syracuse University notes in a monograph being prepared for the New York State Education Department, professional values, knowledge and skills are measures only of the individual teacher's competence. Citing the work of R. S. Soar, *et al.*, Dr. Mager states that competence alone does not ensure that a teacher will perform well in the classroom.

Research on effective schools shows that, no matter what a teacher knows about a subject, how he or she presents the material in large measure determines whether or not students learn. Thus, teacher performance is the greater determinant of student outcomes—and, hence, teacher effectiveness.

Programs that offer training assistance to beginning teachers and that require periodic classroom evaluation of all teachers are based on the principles that effective teaching is a skill that can be learned, and that teachers—like all other professionals—benefit from discussions with their colleagues of their approaches and techniques.

Certain teaching strategies—such as pacing instruction to maintain motivation, purposeful organization of classroom time, and maintaining an academic focus in a supportive environment—all achieve results in student learning. Carefully designed evaluation programs that offer teachers constructive criticism of their teaching techniques thus are aimed at helping all teachers become "effective" teachers.

This section considers a number of state initiatives in the areas of teacher education and certification, and concludes with a discussion of what the limitations of some of these initiatives may be. The initiatives are considered as they occur, at five stages in the career of teachers:

1) Upon entry into the teacher education program;
2) During the teacher education program;
3) At the conclusion of the teacher education program;
4) At the beginning of teaching; and
5) During the teaching career.

1. Initiatives that Address Entry into the Teacher Education Program.

In response to charges that many students admitted to teacher education programs are not well-prepared academically, many states have stiffened entrance requirements to teacher education programs, including requiring a certain minimum score on a standardized test. According to the American Association of Colleges for Teacher Education (AACTE) June 1986 50-state survey of state education policies, 24 states now or will

soon base admission to teacher education programs in part on the student's score on an entrance examination.

As Figure 10 shows, these tests vary in kind from those developed specifically for the states (those used in Arizona, Connecticut, and South Carolina, for example) to standardized tests such as the Scholastic Aptitude Test (SAT), the American College Test (ACT) or the Pre-Professional Skills Test (P-PST). In some states, such as California, the test is for "diagnostic purposes" only, according to the Education Commission of the States' recent survey of state teacher policies.

Figure 10 also shows that minimum acceptable scores on these tests vary by state, and in some cases by admitting institutions of higher education within the state. Although both Tennessee and Texas use the P-PST to judge candidates for admission to teacher education programs, for example, Tennessee requires minimum scores of 169 for mathematics, 169 for reading, and 172 for writing, while Texas requires minimum scores of 171 for mathematics, 172 for reading and 173 for writing.

The other primary requirement for entrance into teacher education programs is a minimum grade point average (GPA). In its useful survey, *New Directions for State Teacher Policies*, ECS notes that 27 states have minimum GPA requirements for entrance into teacher education programs. As with test score requirements, the minimum GPA requirement represents an effort by policymakers to require that students enrolling in teacher education programs show evidence of stronger academic ability than previous students may have shown.

As with test scores, the GPA requirements vary by state. Recent legislation passed in Colorado, for example, requires that the student have a GPA of 2.5 (out of 4.0) for the last 30 hours of college work, have graduated in the top 50 percent of his or her high school class, or have scored 19 or above on the ACT or 950 on the SAT. GPA requirements for entrance into Hawaii's teacher training programs vary by institution but are usually a minimum of 2.75 out of 4.0, having increased in the fall of 1985 from a minimum of 2.5, ECS notes.

Not all states set state entrance requirements to teacher education programs, according to the ECS survey. In at least 10 states—including Delaware, Maine, New York, Rhode Island, Vermont, and Virginia—admissions standards are set by the individual institutions of higher education. For those states that have such requirements, however, a review of legislation in this area passed since 1982 indicates that states have become increasingly concerned with the ability of teacher education candidates to demonstrate basic skills in reading, writing, and mathematics.

2. State Initiatives that Affect Students within the Teacher Education Program.

Recent state initiatives in this area have focused both on directing teacher candidates towards earlier field experience and on toughening course requirements.

In its survey, the ECS described the recent trend toward early field experience requirements, which in some states begin in the sophomore year. Some 18 states now have this requirement. A 1985 Colorado law requires 100 clock hours of early field experience and an additional 400 clock hours of student teaching. In Massachusetts, the introductory field experience is 300 clock hours. In addition, Massachusetts regulations require supervised student teaching for one semester, for a total of 25 student contact hours per week, while Ohio now requires 600 hours of field and clinical experience.

As of late 1985, ECS says, 12 states had revised their teacher training coursework regulations, favoring "more rigor and specificity in the allowed courses."

Since 1985, for example, Florida has required that those training to be secondary teachers take a minimum of 30 hours in upper division courses in their specialized area, along with certain general and professional requirements, and student teaching. Recent legislation passed in Maine requires new teachers "to have [a] strong liberal arts and science background," ECS found.

In similar actions, legislation passed in New Mexico in 1986 specifies that prospective teachers take 54 credits of general education in a college of arts and sciences, as well as a minimum of 14 weeks of student teaching, AACTE says. The Mississippi education reform package scheduled to take effect in 1986-87 specifies a core curriculum for teacher candidates that includes 44 units in general education, the choice of an academic major, and a minimum of 12 weeks of full-time student teaching, according to AACTE. New curricular standards scheduled to be in place in Oklahoma by 1987 are: 50 semester hours of general studies, 30 semester hours of professional education, and 40 semester hours in a subject specialization, AACTE reports.

In addition, ECS found, two states have recently required that teacher education programs "coordinate their offerings with the needs of the state's elementary and secondary schools," in order to give teacher candidates more access to the K-12 classroom experience, ECS suggests.

3. State Initiatives that Address Graduation from the Teacher Education Program.

To be qualified as public school teachers, teacher education candidates must fulfill certain graduation and initial certification requirements, which vary from state to state. For initial certification, nearly all states have traditionally required candidates to complete an approved teaching program and earn a baccalaureate degree. At this stage, as in entry into teacher education programs, the states' increased interest in testing is apparent.

The June 1986 AACTE state survey shows that 38 states have recently begun to require that graduates of teacher education programs pass standardized tests before they can receive initial certification as teachers (see Figure 10). The most common test used is the National Teachers Examination, developed by the Educational Testing Service. Some states require the P-PST, and some make up their own initial certification examinations. States with their own certification examinations include Alabama, Arizona, Florida, Texas, and West Virginia.

FIGURE 10

State Required Entry, Exit and Certification Examinations as of 6-24-86

State	SCDE Entrance Exam	Cutscores	Certification Exam	Cutscores	Proposed Exam	Implementation Dates
Alabama	SAT or ACT	745 or 16	Alabama Initial Teacher Cert. Test	70+		In Place
Alaska	NO EXAMINATIONS					
Arizona	Arizona Teacher Proficiency Exam (BS)	80%	Arizona Teacher Proficiency Exam (PK)	80%		In Place
Arkansas			NTE-GK, CS, PK	Being Validated		6/1/87
California	C-Best	Total of 123, No Score Under 37		By SCDE Exit		In Place
Colorado	CAT or SAT or ACT	75%ile or 950 or 19	NTE-PK, CA	Being Piloted and Validated		1986-87
Connecticut	State Developed Basic Skills Test	M-70%, R-71%, W-75%			Exit "Assessment" Inst. Being Developed	1986-87
Delaware	P-PST	R-175, M-175, W-172		By SCDE Exit		In Place
District of Columbia					Considering Use of Standardized Cert. Exam	No Date
Florida	SAT	840	Florida Teachers Exam	R-200, W-6, M-200, PK-200		In Place
Georgia			GA-NES-CA Exams PK, BS Exams	70+ Being Developed		In Place 1987
Hawaii			NTE-GK, CS, PK	Being Validated		9/1986
Idaho					Considering Use of Standardized Cert. Exam	No Date
Illinois			BS, CA Exams Are Mandated		State Instruments Being Developed	1988
Indiana			NTE-GK, CS-653, PK-646	Scores Being Revalidated for 1987		In Place
Iowa			Exit Exams Are Mandated		P-PST, NTE-PK, NTE-CA Being Piloted	No Date
Kansas			P-PST, NTE-PK	R-168,M-168, W-170, PK-642		5/1986
Kentucky	C-Best	Scores Vary by IHE	NTE-GK, CS, PK	GK-637, CS-643, PK-641		In Place
Louisiana	NTE-GK, CS	GK-644, CS-645				1985-86
Maine			NTE-GK, CS, PK	Being Validated	Use of NTE-PK and CA Under Consideration	1988
Maryland			NTE-GK, CS, PK	Being Validated		1987
Massachusetts			CS, CA and Language Skills Exams Mandated		Exams Being Developed	1989

(Continued)

FIGURE 10 (continued)

State Required Entry, Exit and Certification Examinations as of 6-24-86

State	SCDE Entrance Exam	Cutscores	Certification Exam	Cutscores	Proposed Exam	Implementation Dates
Michigan	NO EXAMINATIONS					
Minnesota	Verbal and Math Exams Mandated		BS and CA Exams Mandated		Exams Being Developed	1989
Mississippi	COMP or P-PSAT	Scores Vary by IHE	NTE-GK, CS, PK, CA	GK-639, CS-644, PK-642, CA-470-520		1986
Missouri			Exit "Assessment" Mandated		Instruments Being Developed	1987
Montana			NTE-GK, CS, PK	GK-644, CS-648, PK-648		1986-87
Nebraska	P-PST	Being Validated			Exit Exams Being Considered	1986-87
Nevada	State Univs Use P-PST	Being Validated				No Date
New Hampshire			P-PST	R-173, M-174, W-175		In Place
New Jersey			NTE-GK, CA-Vary			In Place
New Mexico			NTE-GK, CS, PK	GK-645, CS-644, PK-646		In Place
New York			NTE-GK, CS, PK	GK-649, CS-650, PK-630	NTE-CA Exams Being Validated	In Place
North Carolina			NTE-GK, CS, PK, CA	GK-631, CS-636, PK-644, CA-470-550		1986
North Dakota Any Nationally Standardized BS, PK, and CA Exam Mandated for Use by Exit (NCATE Requirement for Program Approval)						1988
Ohio			55 LEAs Require the P-PST or NTE	Scores Vary by LEA	Statewide Exams Being Considered	No Date
Oklahoma	P-PST	Being Validated for Use in 1986-87	OK-NES Developed CA Exams	Scores Vary		In Place
Oregon	C-BEST	Total of 123, No Score Under 37				In Place
Pennsylvania			BS, PK, CA Exams Mandated		Exams Being Determined	1987
Rhode Island			NTE-GK, CS, PK	Being Validated		9/1986
South Carolina	South Carolina Entrance Exam	R-45/56, M-40/56, W-3.0 out of 4.0	NTE-CA	Scores Vary		In Place
South Dakota	NTE-GK, CS	Being Validated	NTE-PK, CA	Being Validated		1986-87
Tennessee	P-PST	M-169, R-169, W-172	NTE-GK, CS, PK	GK-637, CS-640, PK-631	NTE-CA Exams Being Validated	In Place
Texas	P-PST	R-172, W-173, M-171	TX Developed PK and CA Exam (ExCET)	Being Validated		1986
Utah	NO EXAMINATIONS					
Vermont	NO EXAMINATIONS					

(Continued)

FIGURE 10 (Continued)

State Required Entry, Exit and Certification Examinations as of 6-24-86

State	SCDE Entrance Exam	Cutscores	Certification Exam	Cutscores	Proposed Exam	Implementation Dates
Virginia			NTE-GK, CS, PK, CA	GK-639, CS-649, PK-631, CA-Vary		1986
Washington	Washington Pre-College Test or - on SAT	50%ile				In Place
West Virginia	ACT Speaking, P-PST, IHE-Listening	Being Validated	WV-NES Developed Content Exam	Being Developed		1986-87
Wisconsin	BS Exam Mandated		CA Exam Mandated		Exams Being Determined	1987
Wyoming	CAT	70%ile				1986-87

Key:

ACT	American College Test	IHE	Institutions of Higher Education
BS	Basic Skills	NCATE	National Council for the Accreditation of Teacher Education
CA	Content Area	NES	National Education Service
CAT	California Achievement Test	NTE	National Teachers Examination
C-BEST	California Basic Skills Test	PK	Professional Knowledge
COMP	College Outcome Measures Project	P-PST	Pre-Professional Skills Test
CS	Communication Skills	SAT	Scholastic Aptitude Test
GK	General Knowledge	SCDE	School, College, or Department of Education

Source: *Teacher Education in the States: 50-State Survey of Legislative and Administrative Actions*, American Association of Colleges for Teacher Education, June 1986.

In a 1986 review of state assessment trends for *AACTE Briefs*, J. T. Sandefur, dean of the College of Education and Behavior Sciences, West Kentucky University, noted that in testing teachers for initial certification, states are most concerned to see, in descending order of importance: knowledge of basic skills; professional knowledge; subject content; and, lastly, demonstration of competence on the job.

Mr. Sandefur points out that before 1980, only 10 states had mandates to test teachers before certification. ECS concurs with Mr. Sandefur, calling this type of testing "a phenomenon of the 80s."

The movement to test teachers upon entry into and exit from teacher education programs had its origins in the South, beginning in Georgia, Louisiana, and Florida, and spread from there to the West and Northeast. "The northern states have been among the last to adopt teacher testing," Mr. Sandefur says. The ECS notes that "in some states, [testing for initial certification] is so recent that validity studies or piloting are currently being conducted, with full implementation scheduled for later in the decade."

4. State Policies that Affect Teachers at the Beginning of Teaching

In addition to "pencil and paper" tests, increasing numbers of states are requiring on-the-job performance evaluations before granting initial certification to new teachers.

Such "induction programs," as they are called, may be a mentor teacher or apprenticeship program, such as those discussed in the recruitment section of this monograph. The beginning teacher is closely supervised and assisted by more experienced teachers for a period ranging from one to four years.

States that use this period of a beginning teacher's career as part of the initial certification process often grant provisional certificates to these teachers. On-the-job evaluation for standard initial certification generally occurs at the end of the provisional certificate period. Figure 11, from the AACTE, shows which states require performance assessment of classroom teachers, either for initial certification or for renewal of certificates.

"Interest in an induction year for new teachers suggests that educators and policymakers recognize that a paper and pencil entry or exit test alone is not a sufficient indicator of a person's ability for success as a teacher," notes the AACTE in its 1986 survey. "As states move toward required induction programs, they are recognizing that new methods of assessment are needed to evaluate these personnel and to provide direction for needed professional development."

Evaluation methods, of course, vary from state to state. In Georgia, for example, beginning teachers are evaluated under a state-developed testing system called the "Teacher Performance Assessment Instrument" (TPAI). Developed in 1980, the instrument defines eight generic "teaching competencies," with 30 separate performance indicators, according to ECS. Scheduled classroom observation is made by a three-person data collection team consisting of a school administrator, a peer teacher, and an external data collector from one of 17 regional centers located throughout the state. All team members are given "extensive training and periodic reliability checks," ECS says.

FIGURE 11

State Mandated Testing/Assessment Requirements for Classroom Teachers as of 6/24/86

State	Instrument	Required for:	Required Minimums	Evaluating Authority	Probation Period	Number of Evaluations/ Admins	Implementation Dates
Arkansas	Arkansas Educational Skills Assessment Exam (BS) And NTE-CA or 6 Grad Hours in CA W/3.0 GPA	Certificate Renewal	R-70%, M-70%, W-Pass And CA-470-510	SDE	NA NA	5x 5x	6/1/87 6/1/87
Colorado	1984 legislation, HB 1338, mandated the statewide performance evaluation of teachers. State guidelines were developed this last year. Beginning July 1, 1986, LEAs are required to design their own evaluation instruments along these state guidelines.				Effective September 1, 1988, recertification will be tied to performance evaluation. Each certified staff member must have a completed recertification plan 24 months prior to the expiration of his/her certificate. Districts are required to remediate where deficiencies are assessed.		
District of Columbia	DC Intern Evaluation System And CA Exam Under Development	Certificate Renewal	Measured Competency in Such Areas As Planning, Teaching, Strategies-Classroom Management will be Criterion Referenced Competency Based	D.C. Ed. Dept., School Principal, Mentor Teacher, and Site Dept. Chair	2 yrs. Provisional Cert. w/2 yr. Probationary Extension	Every 2 wks.	1985-86 1988
Florida	Florida Performance Measurement System (FPMS) Criterion Referenced Performance Evaluation on 6 Scales	Standard Certification Certificate Renewal	Satisfactoy Demonstration on the 4 Summative Domains	Trained Administrator Trained Teacher (both independent of site)	1 yr. Provisional with 1 yr. Probationary Extension	3 Separate Evaluations Final 1 is Summative	In Place
Georgia	Teacher Performance Assessment Instrument (TPAI) and GA-NES CA Exam	Standard Certification Certificate Renewal	Used as Prescriptive Measure 70+ on Each Exam	LEA SDE	3 years 1 year	2+ a year 4+	1980 7/1/87
Illinois	SB 730 requires LEAs to develop, in cooperation with teachers or/and teacher organizations, an evaluation plan for all tenured teachers. The following specifications must be met: (1) Evaluation must occur every two years beginning in 1986-87. (2) Each teacher must receive a description of duties and responsibilities by which he or she will be evaluated. (3) The assessment of administrators must be conducted by independent evaluators. (4) Teacher evaluators must be adequately trained. (5) Ratings must include performance scales. Unsatisfactory ratings require a one-year remediation plan. Teachers failing to receive a satisfactory rating after the remediation period must be dismissed.						
Kentucky	FPMS (see Florida) is Used by State	Standard Certification	See Florida	Resource Teacher Principal SCDE-Rep.	1 yr. Provisional with 1 yr. Probationary Ext.	70-80 hrs. 4 Visits 4 Visits	In Place
Texas	Texas Examination for Current Administrators and Teachers (TECAT) (BS)	1x Exam for Continued Employment and Certificate Renewal of Current Personnel to be Replaced by ExCET for New Teachers (see preceding table)	Reading 4155 Writing: Gold Essay or 2730 Multiple Chice	SDE	NA 1 year Extention Possible	3 Admins. Before 9/1986	9/1986
Virginia	Beginning Teacher Assessment Program (BTAP) Criterion Referenced, Low Inference Measurement System of 14 Generic Competencies	Standard Certification	Successful Demonstration of All 14 Competencies	SDE-Team Comprised of 3 Independent Observers-Educators	1 year Provisional with 1 year Probationary Extension	Fall and Spring Evaluations	9/1986

Key:

ACT	American College Test	IHE	Institutions of Higher Education
BS	Basic Skills	NCATE	National Council for the Accreditation of Teacher Education
CA	Content Area	NES	National Education Service
CAT	California Achievement Test	NTE	National Teachers Examination
C-BEST	California Basic Skills Test	PK	Professional Knowledge
COMP	College Outcome Measures Project	P-PST	Pre-Professional Skills Test
CS	Communication Skills	SAT	Scholastic Aptitude Test
GK	General Knowledge	SCDE	School, College, or Department of Education

Source: *Teacher Education in the States: 50-State Suvey of Legislative and Administrative Actions*, American Association of Colleges for Teacher Educatior, June 1986.

The TPAI has several parts, all of which are intended to result in improvement in staff performance. Before classroom review, teachers put together a teaching plan and materials for the team to look over. After the classroom assessment, the team gives the teacher feedback on his or her performance. Areas to be improved are identified and school officials design staff development programs to focus on those areas, ECS says.

Beginning teachers are given three years to pass the test, which as of 1985 had a pass rate of 86 percent, according to ECS. Georgia education officials have said that over 90 percent of beginning teachers use the assessment results to improve their performance. In 1983, three years after the test was put in place, the annual pass rate had risen from 60 percent to 75 percent, ECS says.

Virginia began a similar performance evaluation program—the Beginning Teacher Assessment Program—in the summer of 1985. Under this plan, graduates are granted a two-year, non-renewable provisional certificate. During the two-year period, all employed beginning teachers are assessed by three independent observers, who look for the "presence or absence of 14 generic [teaching] competencies," AACTE says. Remediation for those not meeting the standards is provided at regional centers. Re-assessment is part of the process, but certification is denied if candidates fail to meet state standards upon re-assessment.

5. New State Policies that Affect Experienced Teachers

Requirements for continued certification have traditionally included inservice education, the taking of additional courses, and completing a certain number of years of teaching. With respect to this stage of the teacher's career, recent reform efforts in the states have raised the requirements for renewal of certificates and for obtaining advanced certificates, and have led to elimination of "lifetime certificates" in several states.

According to ECS, initiatives in this area have occurred in states such as:

Indiana, where reform efforts have led to discontinuance of lifetime certificates by 1990, to be replaced by five-year certificates with renewal based on credits or inservice; and

Rhode Island, where, as of 1987-88, individuals can earn: a) a five-year professional renewable certificate requiring nine credits of course work every five years, or b) a life certificate, which requires a master's degree in their subject area and six years of teaching experience.

Another recent trend involving continued certification of experienced classroom teachers is basic skills testing, a controversial plan opposed by both the National Education Association and the American Federation of Teachers—the country's largest teacher unions. Briefly, the plan requires that classroom teachers—many of them with several years of experience—be required to pass tests of basic skills to receive continued certification.

While the two teachers' unions favor basic skills testing of entrants to the teacher profession, they assert that such measures of competency are inappropriate for experienced teachers. They also charge that such tests often have a disproportionate effect on minority teachers. Those policymakers who support basic skills testing for experienced teachers see it as a way to ensure quality in the teaching force.

Texas administered the first Texas Examination of Current Administrators and Teachers in March 1986, and 96.7 percent of those examined met the minimum requirements, according to the AACTE. In Arkansas, where initial testing of teachers took place in March 1985, all certified personnel must pass the Arkansas Educational Skills Assessment Test by June 1, 1987 to qualify for certificate renewal, AACTE states.

Basic skills testing has resulted in lawsuits filed by teachers unions in at least two states. Its effect on the quality of education in the states that require it is as yet unknown.

As with beginning teachers, recent education policy reforms also have made evaluation of the classroom performance of experienced teachers a more common practice, as Figure 11 shows. ECS estimates that more than 25 states now require districts to evaluate the performance of their teachers, in part as a way to determine the staff development or inservice education needs of the district's teachers.

With respect to inservice education, the ECS survey found that recent reform legislation and state board action has resulted in the creation of a variety of new plans, including:

- loan programs for continued professional training, in Arkansas;
- summer institutes that focus on specific areas such as mathematics, science, foreign languages, or computer education, in Florida;
- a requirement that local districts develop approved professional development plans for their teachers, in Illinois;
- state funding for local level mathematics and science inservice, in Iowa;
- "New School Improvement Councils," which provide funds that can be used for a variety of activities, including inservice training in each school building, in Massachusetts; and
- a $2.7 million allocation for tuition reimbursement to provide the equivalent of a public college tuition rate for three credits every other year for educators in their specialty fields, in South Carolina.

Advanced certification is another area of teaching that has been addressed by the education reform movement. While several states require teachers to obtain an advanced certificate simply to continue teaching, a recent trend in states is toward "career ladders," which tie advanced certification to career advancement benefits such as increased responsibilities and salary increases.

ECS notes that at least 26 states are either setting up statewide career ladder plans or are instituting pilot programs in selected districts. Some states will require career ladder participation by districts; in other states the plan will be optional, ECS says.

Career ladders, because they are a career incentive for teachers, will be considered in more depth in the next

monograph in this series. It can be said here, however, that the trend toward linking certificate renewal, advanced certification, and teacher evaluation to career incentives shows, as ECS put it, that these requirements "no longer exist in a vacuum. They are tied together and probably encourage teachers to improve."

The Effects of Recent State Teacher Education and Certification Reforms on the Teaching Profession

In its survey of recent state teacher policies, ECS found that 35 states showed "significant" activity in developing policies that address teacher education programs and students in those programs; 33 states showed significant activity in the area of initial certification and other policies for beginning teachers; and 28 states showed significant activity in developing policies that address experienced teachers. Some 20 states showed significant activity in all three areas, ECS found.

Observers of the education reform movement applaud many of these state activities, especially the strengthening of course requirements for students in teacher education programs, the assistance provided to beginning teachers, the increased emphasis on performance evaluations for all teachers, and a growing trend toward increasing inservice education offerings.

But critics caution that the increased emphasis by states on standardized testing of teachers at various stages in their career carries with it several problems, which education policymakers should address.

In the first place, they argue, a standardized test of basic skills is by no means a completely appropriate measure of a person's ability to teach in a classroom. Young people who fail these tests and thus are screened out before entering teacher education programs might have strong talents as teachers, but, because of poor schooling, lack basic skills. Especially in light of the current teacher shortage, efforts should be made to provide remediation to these candidates, who with academic encouragement might prove to be gifted teachers.

Furthermore, one group of candidates who are at high risk for failure on standardized examinations are minority students. Information in the teacher supply chapter of this monograph shows that the problem of the disproportionately high number of minority students who fail teacher program entrance and exit examinations is especially critical given the anticipated rise in the number of minority students attending schools. As school districts' minority student populations increase in the coming years, teacher education programs should be developing ways to draw minorities into teaching instead of shutting them out, opponents of such tests say.

In addition, although the teacher reform measures discussed here were designed with the aim of improving the effectiveness of teachers in helping students to learn, it may be difficult to calculate the real impact of these reforms upon teacher effectiveness. The impact on student learning of increased requirements for teacher certificate renewal or teacher testing, for example, may never be clearly determined.

A related criticism of these teacher reforms has to do with the aspects of teaching that the reforms address. In its 1986 report on education, *Time for Results*, the National Governors' Association pointed out that the vast majority of reforms aimed at teachers and teaching are concerned with changing the status of individual teachers, rather than with improving the environment in which they teach.

Although teacher education and certification reforms are important, those policies that offer ways to reorganize the schools and give teachers a more important role within them may be the best way to improve the quality of education, the NGA says.

ECS concurs with NGA's findings. "Although cooperation among teachers, principals and other administrators seems critical to school improvements, most teacher policies appear to focus on individuals rather than on interrelationships," ECS says in its report *New Directions*.

Those policies that target improvements to the schools as organizations—in part by giving teachers more of a voice in running their schools—appear to have the "greatest [beneficial] effect" on student learning, ECS says.

Some of these new policies include: intern programs, "in which veterans help new teachers;" performance-evaluation programs "that require teachers and administrators to work together;" and staff development programs "in which teams of teachers cooperate," according to ECS. The beneficial effects on student learning are especially clear in intern programs, ECS suggests, in which evaluations "are intentionally coupled with staff development."

Given these findings, local district leaders may wish to review their own teacher preparedness programs, to determine if they are focused more on individual teachers or on improving schools as organizations. The last section of this chapter offers some suggested policy actions in the area of teacher preparedness for local district leaders to consider. First, however, the recommendations of the Holmes Group, Carnegie Task Force, and National Governors' Association reports are reviewed, in light of the effect they may have on districts.

Impact on Districts of the Holmes Group, Carnegie Task Force, and NGA Recommendations on Teacher Preparedness

Several of the recommendations concerning teacher preparedness made in these reports could have a significant effect on districts:

The Proposals to Develop National Standards for Teachers

Development of a national certification program for teachers may mean that acquiring this credential will become increasingly important for teachers in a district. While having a number of teachers with this credential

may increase a school's reputation, it may also mean additional salary costs if higher wages accompany such certification. In addition, teachers may request leaves of absence to prepare for the tests associated with these examinations. Such leaves, because they generally require hiring a temporary replacement, can represent hidden instructional costs for the district. The development of voluntary national standards for teachers does not mean that districts will not set their own standards for teacher preparedness. District leaders still retain the responsibility to determine what their needs are with regard to teacher preparedness, to develop their own standards, and to evaluate their teachers by those standards. However, national standards would most likely have an impact on defining what constitutes an effective teacher, which would in turn affect state and local standards.

The Proposals to Increase Academic Requirements for New Teacher Education

Both the Holmes Group and the Carnegie Task Force suggest that new teachers should complete a graduate education program before they can be initially certified as teachers. Such a proposal would require districts to offer higher starting salaries for these new teachers, since they would have advanced education credentials.

The Proposal to Connect Schools of Education with Public Schools

As suggested previously, such a plan could do much to increase the preparedness of classroom teachers, by giving them access to college and university education departments where they could benefit from new developments in education research, as well as from the exchange of ideas about teaching strategies with education professors.

District officials, by working directly with teacher education institutions, can become active participants in defining those teaching skills that should be taught in teacher preparation programs. The proposals offered by the policy groups in this area suggest that there exists both the opportunity and the need for district participation in this important issue.

Recommendations such as these can have a significant impact on local districts. Such proposals are as yet theoretical, or only recently set in place, however, and their full effect cannot be predicted. In the meantime, district leaders may wish to consider taking steps to improve the preparedness of teachers in their districts. The following are several suggested policy actions in the area of teacher preparedness, which district leaders may wish to consider.

Suggested Policy Actions Concerning Teacher Preparation for Local District Leaders

In this area, local district leaders can:

- Ensure that local policies clearly set forth the criteria by which teachers hired in the district should and will be evaluated. Evaluating teachers constructively—with an eye to improving their performance instead of merely fulfilling a state requirement—and utilizing peer reviews of teachers have been shown to be effective ways to strengthen teacher performance and pupil learning.
- Ensure that standards for teachers: 1) are set in light of the new knowledge required by teachers to prepare today's students for the complex intellectual requirements of their adult world; 2) are not lowered during critical shortage periods; and 3) allow for flexibility in hiring practices, such as sanctioning the use of "alternate route" teachers.
- Participate directly and through state school boards associations in the development and administration of any state initiatives concerning teacher certification requirements.
- Institute a strong continuing education plan that includes: productive inservice workshops run by outside experts on subjects collaboratively identified by teachers and administrators (or supervisors); funding graduate work for teachers to keep up with developments in their fields; and providing opportunities for veteran teachers who wish to re-train to teach in other fields. In addition, districts might consider providing on-the-job training for persons promoted from within the district, to help them meet the demands of their new job.
- In deciding how or if to restructure the teaching corps, make sure that policies address appropriate training and development activities for each level of teacher, and budget funds accordingly. In pondering such actions, district leaders should ensure that all different levels of teachers have opportunities for continued training, and that the criteria determining educational opportunities for each different level are clear and comprehensive.
- Consider adopting policies to institute or improve beginning teaching programs for new "alternate route" teachers, for those new teachers who followed a traditional path to teacher certification, and for experienced teachers returning to teaching after an absence of several years.
- Consider what, if any, opportunities for teacher internships exist in the district currently, and if policies should be developed to create or increase these opportunities.
- Assess the status of teacher preparation in the district by:
  - reviewing the level of preparation of teachers hired, to see if uncertified teachers are being hired during teacher shortages;
  - reviewing where teachers are being placed in the district (to see if they are teaching out of field);
  - reviewing qualifications of teachers hired during, for example, a 10-year period, to see if the level of preparedness of new hires has increased or decreased; and
  - scrutinizing continuing education and recertification programs for experienced teachers.

- Consider collaborating with the state school boards association and/or local business organizations on a study of professional training efforts in other disciplines, such as medicine. Development and study of such models of professional training would give education leaders an understanding of what pitfalls to avoid in their efforts to make the training of teachers an activity more appropriate to the effort to professionalize the field of teaching. Such a model could include both contemporary examples and a broader historical context.

The local policy actions offered here should suggest to district leaders that state legislators and state education agencies are not the only groups who can develop initiatives in this area. Programs created at the district level can be equally effective in assisting with the preparedness of teachers—especially if they are constructed with the goal not of criticizing teachers for their lack of preparedness but rather of assisting professionals to grow and progress within their field. ■

CONCLUSION

The Challenge to District Leaders

The previous chapters have described the dimensions of the problems afflicting the teaching profession today, and have offered some recommendations for addressing those problems. Shortages of teachers exist in many areas of the country, and in many subject fields. Recruitment of teachers is a problem for districts both because of the shortage of qualified teachers and because many districts cannot offer prospective teachers what those teachers consider to be adequate salaries and a professional working environment. Furthermore, as the skills required of teachers become more complex, districts are finding that their own classroom teachers may not have a firm command of these skills, and they look for ways to improve teacher preparedness.

The extent of these problems and the scope of the recommendations offered here may suggest to school district leaders that reform of the teaching profession is a matter beyond their control. But, in fact, the responsibility for putting into practice many of the policies designed to improve teaching—and hence ameliorate predicted teacher shortages and inadequately prepared teachers in the classroom—rests in large measure with local school district leaders.

The challenge to district leaders is a bold one. But it is one that district leaders ignore at their peril, because the demands made upon the public education system as the United States enters the 21st century are increasingly great, and failure to respond to those demands will seriously jeopardize both America's economy and its standard of living.

The Carnegie Task Force argues in *A Nation Prepared* that much of today's debate about education misses this crucial point: that the system of education in this country needs not to be repaired but transformed if it is to fulfill its mission of educating students for adult lives in the 21st century.

"Most Americans still do not understand the gravity of the situation," the Task Force writes. "We believe [the educational system] must be rebuilt to match the drastic change needed in our economy if we are to prepare our children for productive lives in the 21st century."

The Task Force argues that the kinds of mental skills adults will need in the highly technical world of the 21st century differ vastly from those needed by adults in the late 19th and early 20th centuries, when today's public education system was designed.

But, the Task Force continues, "even if by some economic miracle this country could remain competitive without rebuilding our education system, we must do so for other compelling reasons: equal opportunity for all our children and preservation of an informed population capable of self-government—a citizenry with a shared sense of democracy and a vision of our potential as a nation."

For school district leaders, who serve as the voice of their community in the governance of public schools, this final reason for transforming education is of particular significance, and it gives even more credence to district leaders' participation in the current debate about reform of the teaching profession.

The introduction to this monograph pointed out that school districts play a critical role in, as New Jersey's Governor Kean put it, the effort to "create excellent schools." And as the debate over how to reform the teaching profession intensifies, school district leaders have a clear opportunity to play that role.

In addition to developing policies for reform of teaching at the level of their own schools, district leaders have several other avenues of expression open to them in the effort to create new initiatives for reform of the teaching profession. They can appear before state boards of education. They can visit state legislators. They can work with state school boards associations. By presenting state officials with education reforms instead of waiting for state initiatives to be developed and then responding to them, district leaders can go far toward influencing the direction that state teacher reform initiatives take.

A recent study on the position of school boards in U.S. society supports this challenge to school district leaders. The report, issued in November 1986 by the Institute for Educational Leadership, found that there is strong support among community leaders, parents, local citizens and educators for preserving the institution of school boards. Operating at the same time, however, is a "widespread public ignorance" of the "established role and functions" of local school boards—an ignorance unfortunately

exacerbated by the recent dramatic increase in the number of education reforms developed at the state level.

For school boards to strengthen their effectiveness—both perceived and real—the report states that district leaders must meet several challenges. "Boards must become more active and must exercise leadership for education. . . by building stronger links to other sectors of society and the body politic. . .at the same time they remain responsive [to their constituents] at the local level." To exercise such educational leadership, it is incumbent upon school boards to take the initiative in improving their policymaking capabilities, to "lead the community in setting goals for education," and to seize the momentum for education reform by capitalizing on the current unprecedented interest in improving the nation's schools.

The Costs of Teacher Reform

No matter how important the results, the actual work involved in restructuring the public schools has the ominous sound of a costly undertaking to most local district leaders. The Carnegie Task Force estimates that the "incremental costs" generated by its reform package will require "an average annual real increase of resources [devoted to education] on the order of 2.8 percent per year over a 10-year period, or 1.9 percent over 15 years." The report states that the requirement of real annual revenue increments of 2.8 percent over 10 years "is very close to the economy's performance of 2.8 percent average annual growth during the past 15 years."

Thomas A. Shannon, executive director of the National School Boards Association, however, has argued that the Carnegie Task Force's estimates are unrealistic. In the September 1986 *American School Board Journal*, he writes:

"The enormous costs of translating the Carnegie report into reality during the next decade are unknown. The report's estimates of billions of dollars are sheer conjecture. The fact is, nobody can supply even a ballpark estimate; less so can anyone apportion the state and local shares—or the federal contribution, if any. Yet, these budgetary issues are inescapable for board members and administrators and must be resolved before program decisions can be made."

In light of these facts, Shannon says, two "central questions" must be considered concerning the report's cost implications: "Are the American people willing to increase to unprecedented levels their financial commitment to elementary and secondary education?" and "What leadership efforts are school board members, administrators, and others prepared to undertake to persuade the public to make such a commitment?"

The need for district leaders to persuade members of their communities about the importance of reform of the teaching profession has already been considered in this monograph. Because school board members represent their communities, they cannot readily proceed without community support. Part of their duty as board members, however, is to fully inform members of their communities of all aspects of the issues they consider. In the process of informing the community about certain education issues, then, board members may find they gain community support.

With respect to informing the public about the costs of education reform measures, the Carnegie report points out that "many polls show that Americans. . .would be willing to finance significant increases in school expenditures if they are persuaded that great improvements in performance will follow."

Like Shannon, however, school district leaders may find it difficult to translate for their communities the recommendations of this monograph into budget figures. Many of these recommendations are theoretical, and some are aimed primarily at effecting a transformation in a way of thinking about teaching. How much it will cost to transform teaching in the eyes of the public from an occupation to a profession, for example, is impossible to measure. Furthermore, efforts to reorganize the schools and the teaching profession will vary in cost from district to district.

The next monograph in this series, which discusses development of financial and non-monetary incentives for the teaching profession, may provide district leaders with a better position from which to consider reform of the teaching profession within the context of their own annual budgets. Proposals such as merit pay, career ladders, and linking teacher bonuses to student test score improvement all are described in detail, along with several other incentive plans. The information contained in both of these monographs, taken together, thus can provide district leaders with both the theoretical framework and the practical information necessary to consider the issue of teacher reform in their own schools. ■

REFERENCES

Stating the Issues

The Metropolitan Life Survey of the American Teacher 1985: Strengthening the Profession, conducted for Metropolitan Life Insurance Company by Louis Harris and Associates, Inc., 1985.

The Condition of Education, 1985 Edition, edited by Valena White Plisko and Joyce D. Stern, U.S. Department of Education, 1985.

Tomorrow's Teachers, A Report of the Holmes Group, April 1986.

A Nation Prepared: Teachers for the 21st Century, the Report of the Task Force on Teaching as a Profession of the Carnegie Forum on Education and the Economy, May 1986.

Time for Results: The Governors' 1991 Report on Education, National Governors' Association, August 1986.

"ED Throws Weight Behind Governors' Reform Recommendations," by Steven Teske, *Education Daily*, November 12, 1986.

Teacher Supply and Demand

National Education Association, Survey of 100 of the Nation's Largest School Districts, Summer 1986.

A Nation Prepared: Teachers for the 21st Century, The Report of the Task Force on Teaching as a Profession of the Carnegie Forum on Education and the Economy, May 1986.

The Condition of Education, 1985 Edition, edited by Valena White Plisko and Joyce D. Stern, U.S. Department of Education, 1985.

Classrooms without Teachers? Supply and Demand in the West, by Erica J. Gosman, Western Interstate Commission for Higher Education, July 1986.

Teacher Crisis: Myth or Reality?, by Emily Feistritzer, National Center for Education Information, 1986.

"Teachers' Job Outlook: Is Chicken Little Wrong Again?," by Daniel Hecher, *Occupational Outlook Quarterly*, U.S. Department of Labor, Winter 1986.

Teaching Policy: The Data Behind the Debate, by Marc S. Tucker and David R. Mandel, prepared for the Carnegie Task Force on Teaching as a Profession, September 1985.

The Impact of State Policy on Entrance into the Teaching Profession, by Margaret E. Goertz, Ruth B. Eckstrom, and Richard J. Coley, Educational Testing Service, October 1984.

The Dynamics of the Teacher Labor Market in the Southeast, by Ronald Bird, et al., Southeastern Regional Council for Educational Improvement, November 1985.

"Stability and Change in a Profession: Two Decades of Teacher Attitudes, 1964-1984," by Robert B. Kottkamp, et al., *Phi Delta Kappan*, April 1986.

The Metropolitan Life Survey of Former Teachers in America, conducted for Metropolitan Life Insurance Company by Louis Harris and Associates, Inc., 1985.

"Teacher Recruitment and Retention: A Rural School Need," Robert V. Carlson and William Matthes, *The Rural and Small School Principalship*, December 1985.

Teachers: Finding and Keeping the Best in Small and Rural School Districts, by James Miller and Dennis Sidebottom, the American Association of School Administrators, March 1985.

"Teacher Shortage: Big Problems for Small Schools," by Arni T. Dunathan, *Phi Delta Kappan*, November 1980.

Beyond the Commission Reports: The Coming Crisis in Teaching, by Linda Darling-Hammond, The Rand Corporation, July 1984.

Tenth Annual Teacher Supply/Demand 1986: A Report Based upon an Opinion Survey of Teacher Placement Officers, by James N. Akin, Association for School, College and University Staffing, 1986.

"School Leaders Get Their First Long Look at Carnegie's Ambitious Agenda," Thomas A. Shannon, et al., *The American School Board Journal*, September 1986.

Listening to Teachers, by Richard P. Mills and Dennis L. Stout, Education Commission of the States, December 1985.

Teacher Recruitment

The Dynamics of the Teacher Labor Market in the Southeast, by Ronald Bird, et al., Southeastern Regional Council for Educational Improvement, November 1985.

"Quantity vs. Quality: States Aim to Improve Teaching and Teachers," Chris Pipho, *Phi Delta Kappan*, January 1986.

Teacher Education in the States: 50-State Survey of Legislative and Administrative Actions, American Association of Colleges for Teacher Education, June 1986.

The Use of Student Financial Aid to Attract Prospective Teachers: A Survey of State Effort, by Irene K. Spero, The College Entrance Examination Board, February 1986.

New Directions for State Teacher Policies, Judith L. Bray, et al., Education Commission of the States, December 1985.

"Growing Need, Fewer Teachers: 'Everybody is out there Bidding,'" by Lynn Olson and Blake Rodman, *Education Week*, June 18, 1986.

National Education Association Survey of 100 of the Nation's Largest School Districts, Summer 1986.

Finding and Keeping Teachers: Strategies for Small Schools, by Doug Swift, ERIC Clearinghouse on Rural Education and Small Schools, National Institute of Education, 1984.

Classrooms without Teachers? Supply and Demand in the West, by Erica J. Gosman, Western Interstate Commission for Higher Education, July 1986.

Recruiting and Selecting the Most Capable Teachers, by Mary Cihak Jensen, Oregon School Study Council, May 1986.

"Want Superstar Teachers? Scout for Talent, and Recruit Like Crazy," by C. Fred Bateman, *The American School Board Journal*, June 1986.

Teacher Preparedness

Support for First-Year Teachers, by Dr. Gerald Mager, in progress.

"Teacher Evaluation: A Critique of Currently Used Methods," by R.S. Soar, D.M. Medley and H. Coker, *Phi Delta Kappan*, 65(4), 1983.

Teacher Education in the States: 50-State Survey of Legislative and Administrative Actions, American Association of Colleges for Teacher Education, June 1986.

New Directions for State Teacher Policies, by Judith L. Bray, et al., Education Commission of the States, December 1986.

"State Assessment Trends," by J. T. Sandefur, *AACTE Briefs*, August 1986.

Time for Results: The Governors' 1991 Report on Education, National Governors' Association, August 1986.

Conclusion

A Nation Prepared: Teachers for the 21st Century, the Report of the Task Force on Teaching as a Profession of the Carnegie Forum on Education and the Economy, May 1986.

"School Boards Can Increase National Role," *School Board News*, November 12, 1986.

'School Boards—Strengthening Grassroots Leadership, by The Institute for Educational Leadership, November, 1986.

"School Leaders Get Their First Long Look At Carnegie's Ambitious Agenda," Thomas A. Shannon, et al., *The American School Board Journal*, September 1986. ■

SUGGESTED ADDITIONAL READINGS

The Holmes Group and Carnegie Task Force Reports

"The Greater Challenge," by David Imig, *Phi Delta Kappan*, September 1986.

"A Field Guide to the Land of Teachers," by Francis Keppel, *Phi Delta Kappan*, September 1986.

"A Risky Venture," by Howard D. Mehlinger, *Phi Delta Kappan*, September 1986.

"What the Holmes Group Report Doesn't Say," by Edward J. Nussel, *Phi Delta Kappan*, September 1986.

"Rebuilding: First Steps by the Coalition of Essential Schools," by Theodore R. Sizer, *Phi Delta Kappan*, September 1986.

"The Carnegie Report: A Call for Redesigning the Schools," by Marc Tucker and David Mandel, *Phi Delta Kappan*, September 1986.

"Revolution in the Teaching Profession: A Comparative Review of Two Reform Reports," by Sam P. Wiggins, *Educational Leadership*, October 1986.

Teacher Testing and Certification

"Teacher Education and Teacher Testing: The Rush to Mandate," by Gregory R. Anrig, *Phi Delta Kappan*, February 1986.

"Pandora and Pollyanna: Some Comments on 'The Rush to Mandate,'" by Gerald W. Bracey, *Phi Delta Kappan*, February 1986.

"Teacher Certification Testing: Perspectives and Issues," by Rona F. Flippo, *Journal of Teacher Education*, March-April 1986.

"Minority Teachers Can Meet Higher Standards," by Barbara J. Holmes, *Journal of Negro Education*, Summer 1986.

The Teacher Shortage

(The following articles all appeared in the June 1986 *Phi Delta Kappan*, in a special section on the teacher shortage.)

"Licensing Teachers: Lessons from other Professions," by Martin Haberman.

"Toward a Comprehensive Strategy for Addressing the Teacher Shortage," by Willis D. Hawley.

"A Radical Proposal for Teacher Preparation," by Edwin J. Meyer.

"Emergency Certificates, Misassignments of Teachers and other 'Dirty Little Secrets,'" by Robert A. Roth.

"And Let the Air out of the Volleyballs," by Gary D. Watts.

General

"Persistent Instruction: Another Look at Constancy in the Classroom," by Larry Cuban, *Phi Delta Kappan*, September 1986.

State Educational Standards: A 50-State Survey, by Margaret E. Goertz, Educational Testing Service, January 1986.

"Turnaround for the Public Schools?" by Fred M. Hechinger, *The Harvard Business Review*, January-February 1985.

"Teachers Want a Greater Say in Improving the Profession," by Jennifer L. Janson, *Education Daily*, March 10, 1986.

"Teacher Status in Dade County: A Case of Structural Strain?" by Dan C. Lortie, *Phi Delta Kappan*, April 1986.

"Our Profession, Our Schools: The Case for Fundamental Reform," by Albert Shanker, *American Education*, Fall 1986.

About NSBA

The National School Boards Association is located in Alexandria, Virginia, within the Washington, D.C., metropolitan area. NSBA is a not-for-profit organization whose primary mission is the general advancement of public education through the unique North American system of representative and participatory government, whereby elementary and secondary school policy is decided by local school board members who are directly accountable to the community. Over 95% are elected, and the remainder are appointed by elected officials.

Federation Members of NSBA are the 49 state associations of local school boards, the Hawaii State Board of Education, and the boards of education in the District of Columbia and the U.S. Virgin Islands.

NSBA promotes the quality of public elementary and secondary schools through services to its Federation Members and local school boards; by increasing school board impact on federal education laws and regulations; and by maintaining liaison with other education organizations and governmental authorities.

In so doing, NSBA represents the interests of school boards before Congress, federal agencies and in court cases relating to education; provides education and training programs for school board members; provides school district management services; and offers to school boards a variety of other services including an annual convention and the Institute for the Transfer of Technology to Education (ITTE).

The NSBA Federal Relations Network, composed of up to three school board members in each Congressional district, plays a major role in NSBA's education advocacy program in Washington, D.C.

Three major publications are produced by NSBA: the award-winning monthly magazine, *The American School Board Journal;* the monthly magazine, *The Executive Educator,* and a fortnightly newspaper, *School Board News.*

Seven constituent groups within the Federation play a significant role in NSBA's efforts to serve Federation Member and school board needs:

- The Council of Urban Boards of Education focuses on the unique needs of urban school boards.
- The Large District Forum serves the special needs of large but non-urban school districts.
- The Rural District Forum serves rural and small enrollment districts.
- The Federation Member Executive Directors' NSBA Liaison Committee links the top executives within the Federation.
- The Council of School Attorneys focuses on issues of school law.
- The Conference of School Boards Association [illegible]nicators serves NSBA and Federation Member c[illegible]tions professionals.
- The [illegible] Federal Policy Coordinators focuses on the administration of federally funded programs.

NSBA maintains close liaison with other groups, such as the National Caucus of Black School Board Members, National Caucus of Hispanic School Board Members, National Caucus of Young School Board Members, National Association of State Boards of Education, American Association of School Administrators, Forum of Education Organization Leaders (FEOL), Education Leaders Consortium (ELC), National Governors' Association, National Conference of State Legislatures, and Education Commission of the States.

Founded in 1940, NSBA represents the nation's 97,000 school board members who, in turn, represent the more than 40 million public school children in the U.S., which account for about 90% of all elementary and secondary school students in the nation. About 1,900 local school boards are NSBA Direct Affiliates.

NSBA policy is determined by a 150-member Delegate Assembly composed of active school board members across the country. Translating this policy into action programs is a Board of Directors consisting of 21 members and three *ex-officio* members. The executive director administers NSBA programs, assisted by a professional staff.

1680 Duke Street
Alexandria, VA 22314
(703) 838-6722